
United States
Circuit Court of Appeals,

FOR THE NINTH CIRCUIT.

Union Tool Company,

Appellant,

vs.

Elihu C. Wilson,

Appellee.

BRIEF FOR APPELLEE.

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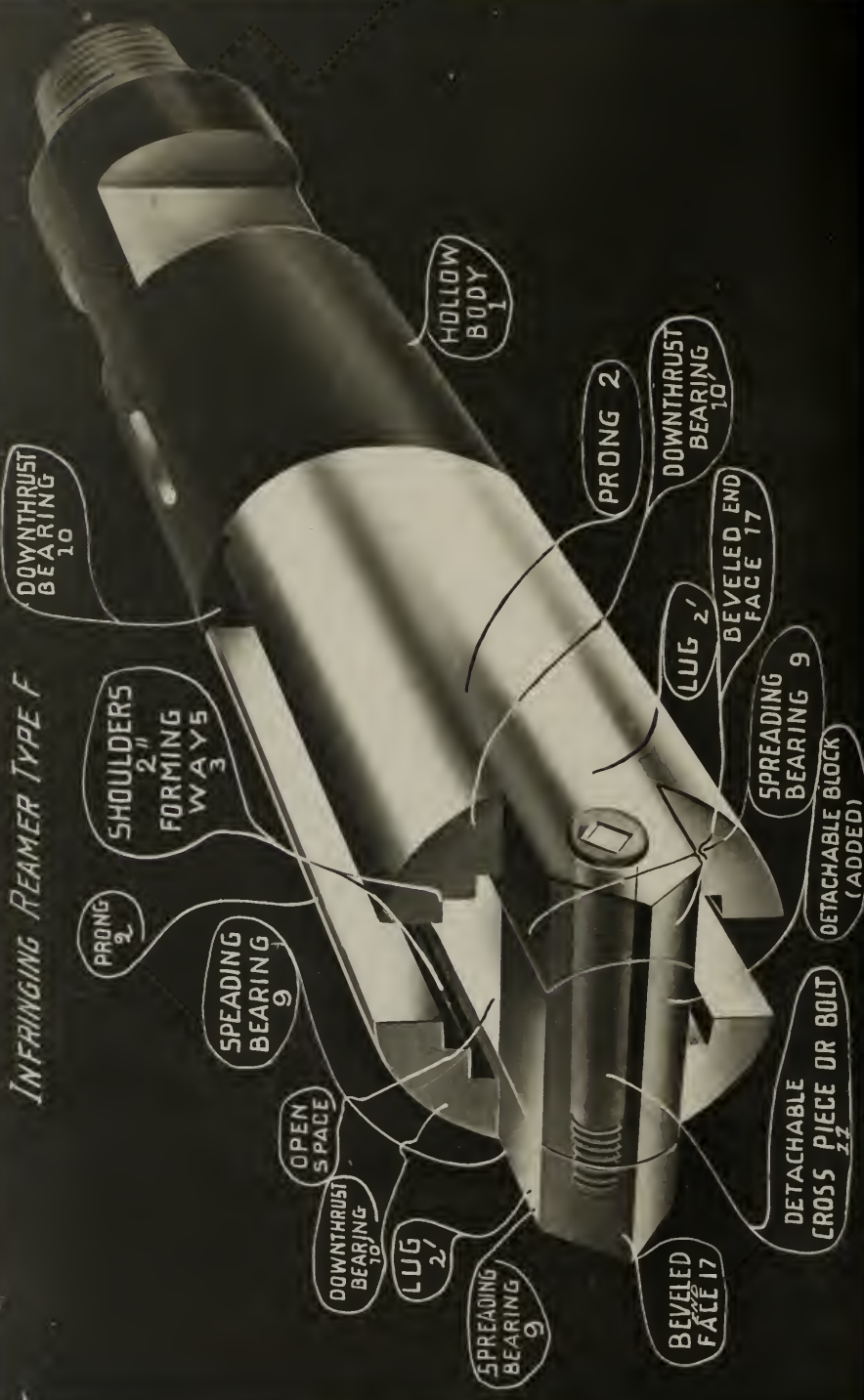
F. D. Monckton,
Clerk

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INFRINGING REAMER TYPE F



HOLLOW BODY
1

PRONG 2

DOWNTHRUST BEARING
10

BEVELED END FACE
17

LUG 21

SPREADING BEARING 9

DETACHABLE BLOCK
(ADDED)

SHOULDERS
2'' FORMING WA YS
3

PRONG 2

SPREADING BEARING
9

OPEN SPACE

DOWNTHRUST BEARING
10

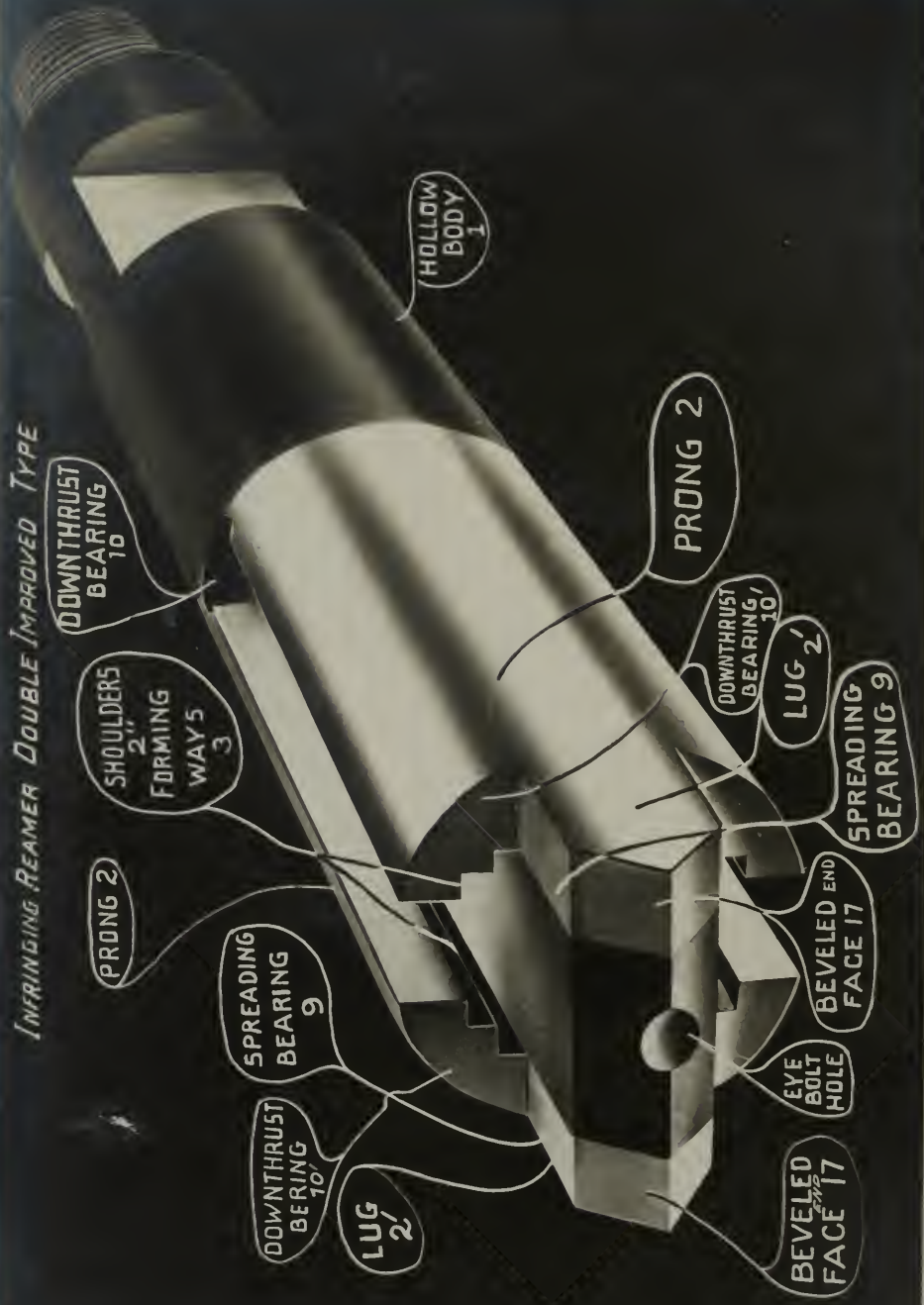
LUG 21

SPREADING BEARING
9

BEVELED FACE
17

DETACHABLE CROSS PIECE OR BOLT
22

INFRINGING REAMER DOUBLE IMPROVED TYPE



HOLLOW BODY 1

DOWNTHRUST BEARING 10

SHOULDERS 2' FORMING WAY 5 3

PRONG 2

SPREADING BEARING 9

DOWNTHRUST BEARING 10'

LUG 2'

PRONG 2

DOWNTHRUST BEARING 10'

LUG 2'

SPREADING BEARING 9

BEVELED END FACE 17

EYE BOLT HOLE

BEVELED FACE 17

No. 2918.

United States

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Union Tool Company,

Appellant,

vs.

Elihu C. Wilson,

Appellee.

BRIEF FOR APPELLEE.

STATEMENT OF THE CASE.

This cause comes before this court on an appeal from the interlocutory decree entered against the appellant, the defendant Union Tool Company, which interlocutory decree held that the Wilson patent No. 827,595, for an underreamer, patented July 31, 1906, and sued on, was good and valid in law, particularly as to claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19 thereof, and was infringed by the defendant and appellant as to claims 9 and 19 thereof, by the manufacture and sale or lease, or sale and lease, of the so-called "Double Improved," and "Type F" underreamers, like "Com-

plainant's Exhibit Improved Double Reamer and Cutters" and Complainant's Exhibit Defendant's Reamer Type "D" and Complainant's Exhibit Reamer Type "E," and Complainant's Exhibit Reamer Type "F." The defendant interposed the usual defenses such as want of novelty, and non-infringement. Likewise the defendant raised the contention at the final hearing that complainant had split up his cause of action under the patent in suit, by bringing two suits, the second after an election had been made to stand upon certain claims in the first suit, in spite of the order made by the trial court denying defendant's motion to dismiss the second suit and ordering the two suits consolidated. The second suit was brought after defendant had refused to permit complainant to depart from his election made on the record during the taking of proofs, to stand upon claims 16 and 17 of the patent in suit, in spite of the fact that defendant produced further infringing devices, after the taking of proofs had commenced, and which it was desired by complainant to bring within the issues of the first suit. Complainant contended that one of these devices, namely Complainant's Exhibit Reamer Type "F," as well as the reamers complained of in the original bill, further infringed claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15 and 19, as well as claims 16 and 17; and in order to be relieved from such original election and that the charge of infringement be enlarged, a new bill was filed in a separate suit, No. B-62, which specifically referred to the election in the original suit No. A-4, and recited the pendency of such suit and alleged that since bringing the same complainant had determined that defendant had departed

from its original procedure in the manufacture and sale of underreamers, and had further and more elaborately infringed the patent sued under than involved in the mere infringement of the claims 16 and 17, as to which election was made in such suit A-4. As stated, the court ordered the suits consolidated, as one cause, "A-4 Consolidated," the parties being the same, and the patent sued under the same, and the jurisdiction being the same, and ordered that the *prima facie* proofs and evidence presented on behalf of complainant in A-4 be the *prima facie* proofs and evidence in such consolidated suit. Such evidence included the several types of underreamers above referred to and ultimately found by the court to infringe claims 9 and 19 of the patent in suit. As to the propriety of such procedure on consolidation of these suits, complainant, as we shall see, relied upon many authorities, in addition to the wise provisions of the present equity rules, and particularly rules 19 and 26 and 34. Defendant contended there was only one general cause of action under the patent sued on, namely, that of infringement of the patent as an entirety, but complainant contends that the same comprise a cause of action attaching to each claim of said patent alleged to be infringed, (each claim being in effect a separate patent), and that by electing to limit his suit by election on the record, in cause, A-4, to claims 16 and 17, complainant could not be barred from asserting by separate bill the technically distinct causes of action arising upon infringement of the other claims as specifically relied upon in B-62. In fact, infringement being a tort, each act produces a separate cause of action. It would have been technical blunder-

ing to have dismissed A-4 and substituted a new bill alleging infringement of claims 16 and 17, as well as the claims relied upon in B-62, particularly under the wise provisions of rule 19. Complainant never waived any of his rights—he only provisionally elected as to the first cause, A-4. The two suits were consolidated into one suit, the two bills of complaint were merged, and under rule 26 a plaintiff has the right to join in one bill as many causes of action, cognizable in equity, as he may have against the defendant. Prior to the taking of any proofs by defendant, and after the order permitting consolidation of the causes into one cause of action, the complainant gave notice upon the record as follows:

“Complainant gives notice to the defendant at this time that alternative to any disposition which may be made of equity suit No. B-62, consolidated by the order of the court with equity suit No. A-4, and thus constituting at present the suit known as equity suit No. A-4 consolidated, in which these proceedings are being conducted, namely, any disposition which may be made of said equity suit No. B-62 at the final hearing of this case with respect to such consolidation of said two cases complainant at such final hearing will rely upon claims Nos. 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19, of the Wilson patent in suit herein. This notice of alternative attitude or position is given at this time in order that defendant may be apprised in the premises before commencing the taking of its proof.”

The court did, it is true, reserve to defendant the right to attack the order on consolidation prior to or

at the final hearing, but defendant never asserted this right: but rather urged at the final hearing that the bill of complaint in B-62 should be dismissed, which right was not reserved it and which was an issue settled by the prior ruling of the trial court denying defendant's motion in that direction. Defendant thus at the final hearing waived any right that it had reserved it to attack the regularity or propriety of the proceedings leading up to the complete organization of the consolidated cause and the effecting of such consolidation. And likewise defendant was fully apprised before its proofs were taken of the assertions and contentions of complainant as to infringement. This is all a matter of mere hairsplitting technicality, and the trial court refused to consider it, even upon motion for rehearing, for, as rule 19 provides, "the court at every stage of the proceeding *must* disregard any error or defect in the proceeding which does not affect the substantial rights of the parties." It is to be noted that this rule is *mandatory*, and does not leave it to the discretion of the court. The election in A-4 as to claims 16 and 17 was without a full comprehension of the scope and extent of the infringement acts of defendant, and complainant proceeded definitely and with precision to expand the charge and inquiry as to infringement, and the pleadings to that end, in a complete and effective manner, with the inevitably automatic result that claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19 of the complainant's patent in suit came before the trial court, and *all* the proofs and evidence, in the charge of infringement. At no time, as the opinion of the trial judge says, did complainant waive his rights to assert

the claims further specified in cause B-62. Complainant, as the opinion said, had the right to withdraw the election and again broaden the issues.

This matter of the bringing of the two suits and the consolidation thereof has been three times passed upon, once by the Honorable Judge Bledsoe on the motions for consolidation and to dismiss, and twice by the Honorable Trial Judge Cushman, in his decisions on the merits and ruling on rehearing to which we refer, as they appear on the record. We thus come before Your Honors with but two really urgable defenses to meet and overcome, namely, the defense of novelty and non-infringement.

The interlocutory decree made the usual further findings as prayed for in the bill, and provided for the usual accounting and injunction, and ordered the usual taxation of costs against the defendant. The trial judge allowed the defendant to file supersedeas bonds in the total sum of \$25,750.00, staying the injunction pending appeal and superseding the cost judgment from which defendant also appeals, the costs having been apportioned as between the complainant and defendant, inasmuch as complainant did not prevail upon all of the claims sued under, although all of the same were found valid.

This cause came on for final hearing at the same time as another cause in equity, involving the appellant here and the Wilson & Willard Manufacturing Company, of which the appellee here is, and at all times has been, president, and of which said appellee owns substantially all of the stock. That cause of action, also on appeal to this Honorable Court, was likewise

decided in favor of complainants, and an opinion filed in the same finding defendant to infringe certain of the claims of the Double patent for underreamers sued on therein, and providing for the usual accounting and injunction and the taxation of costs against defendant. While these two suits do not involve identically the same parties, they do involve the same interests, inasmuch as one of the complainants in that suit, which may be referred to herein as No. 1540, is the defendant in this cause on appeal, and the defendant therein is, as stated, the corporation practically owned by the complainant in this suit. Both suits were brought under letters patent for underreamers for enlarging oil well holes to permit the lowering of the casing, and thus the underreamer manufactured by the defendant in each of these suits was found to infringe the underreamer patent of the respective parties complainant. The Double underreamer patent in suit No. 1540, No. 734,833, was issued in 1903, and the Wilson underreamer patent in suit here was issued in 1906. Cause No. 1540 was heard and argued and submitted before the Honorable Trial Judge just prior to the hearing and argument and submission of this cause No. A-4 consolidated. Defendant answered over in cause A-4 consolidated, in addition to its answer to the bill in A-4, and the defenses as to want of novelty interposed in such answers, particularly as to the prior patent art, are largely the defenses interposed by the answer in cause No. 1540, and certain other defenses as to want of novelty are likewise common to both suits. The Honorable Trial Judge found that neither patent was anticipated on any of these defenses, and

that both patents were for new and useful inventions, and that the underreamers manufactured by Wilson's company the defendant in cause 1540 consolidated infringe the Double patent, and the underreamers manufactured by the defendant Double's company in A-4-B-62 infringe the Wilson patent.

It will be seen from the above brief survey of the situation that these cases are closely inter-related, and it is difficult to understand how a clear and comprehensive and complete understanding of either of them can be obtained upon its consideration separately from consideration of the other. In fact, the Honorable Trial Judge Cushman who heard both these causes stated in open court during proceedings on objections to the statement of the evidence upon appeal prepared by defendant in 1540, pursuant to rule 75, *that it was his view and belief that both these causes on appeal should be argued and submitted seriatim so that joint consideration of the same might be given by Your Honors.* This was one ground upon which appellee successfully opposed the motion of appellant here to set this cause for hearing and submission before Your Honors during the last proceeding or February calendar, appellant's appeal not having been filed and docketed in timely season for the placing of the same regularly upon such calendar. We believe that this cause and said other cause should be presented to and considered by Your Honors together, inasmuch as the evidence in both causes is so closely dove-tailed together for a full clarification of the double-headed issues, and so thoroughly and effectively shows, taken altogether, the relations between the principal parties

to both these controversies, namely, the Union Tool Company, with its underreamer product, and the Wilson and Willard Mfg. Co., with its underreamer product. Cause No. 1540 was commenced in the year 1908, was dismissed for want of prosecution in 1910, and a new bill was thereupon filed, but no move was made to take proofs under the old equity rules until the fall of 1912. A-4 consolidated was commenced in February, 1913, while proofs were being taken in cause No. 1540, and the taking of proofs therein was carried forward as expeditiously as engagements of counsel permitted.

It is the contention of appellee here, borne out as it is by the record, that the patent in suit here really reflects the "last step in the art" within the meaning of the Barbed Wire Patent case, 143 U. S. The proofs before Your Honors in this cause show that the appellant here was driven to this infringement from desperation engendered by the great popularity and success of the Wilson patented underreamer, which reamer has increasingly superseded and driven from the field and trade the Double underreamer originally exploited by the appellant. To imitate the Wilson reamer was the only alternative to appellant, other than complete loss of its reamer business, as for instance shown by the evidence of the witness Wilcox that some twenty odd large oil producing companies, who previously used the reamers of the Union Tool Co., had abandoned the same and adopted and purchased in its place the Wilson underreamer. This was all due to the correction by Wilson in his radically novel underreamer of many inherent defects and weaknesses in the patented

Double underreamer, and his devising of a new reamer combination. The Wilson underreamer has been found an infringement of the Double underreamer patent, and the Double patent reamer has been found an infringement of the Wilson underreamer patent.

The Double underreamer patent was a prior patent, and as to its position in the art as found by the Honorable Trial Judge in case 1540, reference may be had to his opinion as found in 237 Federal Reporter. But Double did not standardize an acceptable reamer. His invention was incomplete and incapable of rendering the service required and the prevention of breakage and loss and damage to oil wells, and it required the Wilson invention of the patent in suit here to bring the art up to the high standard of approximate perfection. That the use of the Wilson invention in the "Wilsonized" Double underreamers, made by appellant here, is indispensable, is evidenced by the fact that defendant filed the appeal bond in the sum of \$25,000, superseding the injunction herein pending appeal. Wilson produced entirely new combinative entities as to the subjects of his claims 9 and 19 found herein to be infringed, and it is of course immaterial that specific subjects of the Wilson patent has been found in cause No. 1540 to infringe the Double patent. That created no excuse for the Double concern, the Union Tool Co., the appellant here, to depart from its earlier procedure in manufacture and sale, and to Wilsonize or remodel and redesign and reorganize its underreamer, and wilfully, as we shall show, to contain and embody the essence and vital substance of the Wilson patent. It is true that the court found that the appellant

here did not take *all* of the invention of the Wilson patent, but retained in its underreamer certain distinguishing characteristics of the Double patented underreamer. But, taking as defendant did of the substance of the Wilson invention, as broadly and comprehensively claimed in the combination claims 9 and 10, its piratical guilt is none the less established. It did not utilize the close collapsion of the cutters between the “prongs,” but it employed the prongs with the lugs at the lower ends thereof which was a highly important feature of the Wilson invention, as we shall see. As we more particularly discuss herein at another point, the use of the term “prongs” was consistently made throughout the Wilson specification and claims in order that there be no confusion as to the parts meant. It would have produced such confusion to refer to these lug-carrying and way-provided parts by more than one designation. On that score it has been said by the Circuit Court of Appeals for the Second Circuit in *Carlson Motor & Truck Co. v. Maxwell Briscoe Co.*, 197 Fed. 309, 315:

“The question is not one of nomenclature but of mechanics, and relates not to the names given to the parts of the combination, but to the functions they perform.”

This is an authority which was employed on brief by counsel for appellant here, in presenting to Your Honors the appellant’s case in *Stebler v. Riverside Heights etc. Co.*, reported at 205 Federal Reporter, 735. In the opinion rendered by Your Honors in that case very significant language was employed as to this proposition of hair-splitting with reference to termin-

ology employed in the claims. Your Honors' recollection is again called to the terminal portion of the opinion in that case appearing on page 740. Further referring to counsel's said brief he quotes in addition to the above citation the following language of the Supreme Court of the United States from *Topliff v. Topliff*, 145 U. S.:

“The object of the patent law is to secure to inventors a monopoly of what they have actually invented or discovered, and it ought not to be defeated by a too strict and technical adherence to the letter of the statute or by the application of artificial rules of interpretation.”

Counsel also in that brief cites *Klein v. Russell*, 19 Wall. 433, as follows:

“The court should proceed in a liberal spirit, so far as to sustain the patent and the construction claimed by the patentee himself if it can be done consistently with the language which he has employed.”

We shall see that the term “prongs” was applied in the Wilson patent to parts having three main function or characteristics.

Defendant here on argument at final hearing contended that there is a difference in mode of operation as between the appellant's structures found to infringe and the subject of the Wilson patent sued on, while forcefully contending (as found) in cause No. 1540 that the subject of the Wilson patent has the same mode of operation as the subject of the Double patent, and while contending here that the infringing structures have the same mode of operation as the

Double patent. In view of the decision in No. 1540, it stands *quod erat demonstrandum*, therefor, as far as appellant can be heard here, that within a proper inquiry on this side of infringement the infringing structures here have substantially the same mode of operation, as that of the subject of the Wilson patent. Going further, we shall see, that within the rule as laid down by Your Honors in *Stebler v. Riverside Heights Orange Growers Ass'n, et al.*, 205 Federal Reporter, 735, *supra*, it is immaterial here whether there has been an addition or whether there has been an omission, inasmuch as appellant will be found to have taken of the substance of complainant's invention. Likewise it will be found that no one of the prior patents or devices alleged to anticipate the claims of the Wilson patent found infringed can possibly be found so to do without that *reconstruction, reorganization* and *modification* condemned in these respects by Your Honors in the same decision.

These, then, are the leading circumstances surrounding and making up the issues which come before Your Honors for review.

The president of the appellant here, Edward Double, and the complainant here, have been before this Honorable Appellate Court previously on a question of infringement pertinent to underreamer devices, in that certain cause entitled "Wilson & Willard Manufacturing Co., and Elihu C. Wilson, appellants, v. Robert E. Bole and Edward Double, appellees, in which Your Honors' opinion is reported in 227 Federal Reporter 607. On that appeal the decision of the trial judge, the Honorable Oscar A. Trippet was reversed, and the

present appellee here Elihu C. Wilson, was found to be the inventor of the subject of the Bole patent under which he and his company were sued for infringement by said Bole and Edward Double the president of the appellant here. There has obtained a most acute condition of competition and rivalry as between these Union Tool Company and Double interests and these Wilson & Willard Mfg. Co. and Wilson interests, for the many years during which both have manufactured and sold large numbers of such underreamers. Appellee and his interests have made a long hard fight against the greater resources of the appellant here, and it has been unfortunate that appellee and his interests have had to meet such tactics of appellant and its Double interests as are clearly reflected in the opinion of the Honorable Judge Rudkin on the reversal made in the appeal of the cause last identified. The infringement found in the cause here is certainly a high tribute to the masterful inventiveness of the appellee here, and it is believed that the assignments of error here presented by appellant will be found baseless upon consideration of the analysis of the issues and proofs as hereinafter made; and upon all equitable considerations.

I.

The Patent in Suit.

The Wilson patent has specifically as its subject a “pronged” underreamer body formation, and the Double patent, in evidence here as Defendant’s Exhibit Double Patent No. 1 shows as its specific subject a

socalled "hollow slotted extension" type of underreamer body. These types have been found mechanical equivalents in the opinion of the court in cause No. 1540 reported in 237 Fed., *supra*. While, under the specific language of the claims of the Double patent, it has been our (unsupported) contention that such equivalents cannot be found, legally, nevertheless under the broader terms and more significant invention, as per the steps taken, of the Wilson patent, such equivalence is apparent. The claims infringed here use this term "prongs" to designate the portions of the body which are provided with other working features, such as shoulders on the inner faces, and the downwardly projecting lugs at their lower ends. In these respects "prongs" is used as a descriptive term without causing the confusion which would be incident to using three different terms, inasmuch as this term "prongs" is likewise used as definitive of the bifurcated structure at the lower end of the body, which, in accordance with one aspect of the Wilson patented invention, permits the cutters to collapse closely together, approaching each other between such prongs, and likewise permits assembling at the bottom of the reamer and "remachining." This close-collapsing performance of the cutters is not found in the infringing underreamers of appellant, but the other construction and inter-relation, pertinent to the provision of shoulders on the inner faces of the prongs and downwardly projecting lugs at their lower ends, with both of which the cutters co-operate, is appropriated by appellant, as well as the assembling and remachining advantages. As the Honorable Trial Judge well said, to make a point of

this double use of the term “prongs” is improper, for, to consistently and unvaryingly describe certain parts of the underreamer is not objectionable, and can raise no issue of noninfringement, as to stand upon any quibble in that connection would be tantamount to saying that “form becomes everything and substance nothing.” (Memorandum of ruling on rehearing.) As said in counsel for appellant’s oft-quoted authority, (in his own case), *Stebler v. Riverside Heights*, *supra*, the question is whether what has been taken by defendant pertains to the substance of the invention.

The patented Wilson underreamer comprises, as will be seen on reference to volume 3 of the transcript of record, pages 977-981, a hollow elongated body 1 provided at its lower end with the projections or prongs 2 forming a fork, and which terminate at their lower ends in downwardly projecting lugs 2', such prongs having shoulders 2'' on their inner faces to form ways 3 for cutters 4, the cutter shanks 4' having bearing shoulders 4² which engage inside of the ways 3; the cutters likewise having expansion bearing faces 4³ on lateral shoulders, which expansion faces co-act with the spreading bearings 9 on the lugs 2' which hold the cutters apart. The lugs terminate at their lower ends in beveled end faces 17 over which ride bearings 16 in which the expansion bearing faces 4³ terminate at their upper ends, thus causing the cutters in the main to be expanded and permitting them in the main to be collapsed, although the spreading bearings 9 are slightly upwardly and outwardly inclined to terminate the expanding action and initiate the collapsing action by co-action with the expansion bearing faces 4³. The cut-

ters are pivotally connected with a spring-actuated rod or stem 5¹ at the T-head or cross 5 at the lower end thereof, such connection being by means of recesses or pockets 18 in the inner faces of the cutters. These pockets 18 are formed in the cutter shanks 4'. The spring-actuated rod or stem 5' is received within the hollow body 1 of the underreamer, and adapted to move endwise therein, the spring 6 which actuates such rod or stem being a compression spring and confined between a nut 19 threaded onto the upper end of such rod, and a suitable holding device, shown in the patent to consist of a block 7 which forms a seat for the spring at its lower end, and through a hole or bore in which the said rod or stem may play, such block 7 being held in place in the hollow body 1 by dowel-pins or the like 8. Downthrust bearings 10, on the body between the prongs 2, co-operate with the upper ends of the shanks 4' of the cutters, and other downthrust bearings 10' are in the nature of shoulders on the forks at the lower ends of the shoulders 2' on the prongs, and which co-operate with the cutters 4 at the zone of the bearings 16. Inthrust upon the cutters in action is taken by the spreading bearings 9, to which it is imparted by the expansion bearing faces 4³, and outhrust of the cutters is taken by the shoulders 2'' of the ways 3 on the prongs which co-operate with the bearing shoulders 4² on the cutter shanks 4'. The cutters are provided with the usual shoulders 30, on their outer faces, which co-act with the casing or its shoe hereinafter referred to, to cause the cutters to be collapsed when the underreamer is to be elevated and withdrawn through the casing.

Furthermore, a detachable cross piece or safety bolt 11 is provided between the lugs 2' at the lower ends of the prongs 2, which to a certain extent braces the prongs, and likewise prevents the cutters and the tee or cross 5 from dropping into the hole and being lost, in case the rod or stem 5' should break, and similarly prevents dropping of either cutter in the hole in case a fracture should take place through the cross or tee. This detachable cross piece is held in place in two bolt holes 14 in the lugs 2', within one of which fits a nut 12 into which one end of the bolt is screwed by a suitable wrench or implement.

In use, the cutters are drawn down against the expansive action of the spring, the rod or stem 5' and the cutters moving together, and the expansion bearing faces 4³ moving over the spreading bearings 9, until the bearings 16 ride over the beveled end faces 17, permitting the cutters to more closely approach each other, or to swing together, in which action they may be accommodated between the prongs 2, as clearly shown in figure 1 of the patent drawing, so that the cutters may be entered into the well casing which is indicated at 40 in figures 1 and 2 of the patent drawings. This casing is shown as having the usual "shoe" at its lower end.

The underreamer is lowered through the casing, with the cutters so collapsed, and the cutters are retained in such positions of collapsion due to their confinement within the casing. When, however, the cutters emerge from the lower end of the casing or the shoe thereon, they are permitted to expand, the bearings 16 riding up over the beveled end faces 17, and the ex-

pansion bearing faces 4³ riding up over the spreading bearings 9, until the upper ends of the shanks 4' of the cutters come against the downthrust bearings of the cutters and, if the parts are so specifically formed, the bodies of the cutters at their sides are brought up against the downthrust bearings 10'. At all times, in both collapsion and expansion of the cutters the bearing shoulders 4² of the cutters are confined within the ways 3 upon the prongs.

The cutters are now in positions to ream, or to enlarge the hole, being thoroughly braced as to inthrust, upthrust and outthrust as above recited.

It will be understood that the reaming of the hole is necessitated in order to cut away the annular shoulder or wall in the hole which remains beneath the casing after a certain period of drilling operation has ensued, such annular shoulder remaining due to the fact that the drilling bit has an outside diameter less than the inner diameter of the casing. In order, therefore, that the casing may be lowered on down in the hole, to prevent "cave-ins," etc., and likewise to prevent invasion of the well hole by water, gas, etc., during development, this annular shoulder must be removed. The underreamer, therefore, is brought into position to remove such shoulder and its cutters are expanded as above stated in the space immediately above such shoulder and beneath the shoe of the casing which is elevated to make clearance between it and such shoulder for the cutters.

With the cutters thus in expanded positions the underreamer is reciprocated in the hole, or raised and permitted to drop alternately, by means of the drilling

line which is attached to the walking beam in the derrick at the mouth of the hole. The cutters attack the formation of the said shoulder or intruding annular wall formation and chip it or break it away and reduce it to cuttings or chippings or detritus which is mixed with water within the hole by a suitable circulating system, to produce a "mud" which is led away from the mouth of the hole, or is dipped out by a suitable bailer.

After the underreaming operation has been continued downwardly to a point substantially coincident with the bottom of the drilled hole, and the casing has been lowered correspondingly, the underreamer is put into condition for withdrawing from the hole by simply elevating it until the shoulders 30 come into engagement with the lower end of the shoe on the casing 40, which "pinches" the cutters inwardly and causes the expansion bearing faces 4³ to ride downwardly over the spreading bearings 9 until the bearings 16 are brought into engagement with the beveled end faces 17 upon the lugs 2', over which latter they ride until the cutters assume the collapsed positions illustrated in figure 1 of the patent drawings. In this connection, the body 1 of the underreamer travels upwardly while the cutters remain relatively stationery. When, finally, the cutters have assumed the collapsed positions they enter the casing or the shoe thereof, and, being confined by such casing and so held in collapsed condition, the entire underreamer is elevated and withdrawn from the casing at the mouth of the hole.

The drilling operation may now be continued, the drilling bit being substituted for the underreamer in suspension from the drilling line and being passed

downwardly through the casing and reciprocated by the drilling line to act upon the formations and carry on down the main bore of the hole until underreaming is again required, whereupon it is withdrawn and the underreamer substituted as before.

An important feature of the underreamer of the invention consists in the possibility of assembling the underreamer, or the cutters, the spring-actuated rod and its spring and the body, at the lower end or open mouth of the underreamer, without the necessity of employing a middle joint in the body 1, or a cap or joint at the upper end thereof. This, of course, is a feature of advantage of the underreamer and not such a thing as can be broadly claimed in itself, but is an advantage flowing *from the combination of parts and features provided by Wilson*, and something which was not possible of accomplishment before Wilson produced his invention. It is true that Defendant's Exhibit Double Patent No. 3 shows a construction and interrelation of features whereby the cutters and spring-actuated rod and its spring may be removed at the lower end of the body, *but part of the body has to come away with them*; and it was poor construction and one never adopted by defendant, in spite of this patent of its president, Double, to build a reamer in which part of the body, and an important cutter-expanding part of the body, is detachably mounted, and removable from the body. In accordance with the Wilson invention, all the cutter-expanding parts of the body, that is of the prongs and lugs and ways, remain fixedly in connection with the body, but by removing the dowel-pins 8 the block 7 may be withdrawn from the lower open end

of the body, between the prongs 2, and with it the spring and rod or stem and the cutters, so that the cutters may be detached for purpose of sharpening the same or "dressing" them out, after a period of operation. This is frequently necessary, due to the hard service to which the cutters are subjected in reaming. If, as in the prior art, and in Defendant's Exhibit Double Patent No. 1, it is necessary to provide a middle joint or detachable cap or "sub" for the body, so that the spring and rod can be inserted, as above the fixed shoulder 19 shown in Defendant's Exhibit Double Patent No. 2, for instance, a great deal of time is consumed, and an extra hazard is introduced within the "string," including the drilling line and the underreamer, namely, an extra liability of "failure" of the string or breakage, which breakage frequently occurs at such threaded joints. With the Wilson invention, the hollow body 1 is continuous and unbroken, and no such extra hazard occurs. Likewise, by using such detachable spring seat 7, or other substitute means such as the key found in the Type "F" infringing underreamer of defendant and which was the subject of litigation in *Double and Bole v. Wilson et al.*, 227 Fed., *supra*, and likewise found in Complainant's Exhibit Wilson Reamer, and which key combined with the other reamer features forms the subject of patent issued to this complainant's assignor May 16, 1916, No. 1,183,151, the rod or stem and its spring may be equally freed and lowered in and removed from the hollow body, so that the cutters may be disengaged and sharpened or dressed out, or fresh or new cutters substituted. The safety bolt or detachable cross piece

11 is of course, removed to permit this operation. This feature of great importance as to which specific suit is now pending between this complainant's assignor and this defendant in the same court in which this cause had its trial and hearing, under said letters patent No. 1,183,151, *supra*, has been directly appropriated by defendant, with the accompanying feature of equally great importance, that the pronged formation may be machined back to reform the prongs and lugs after they have become worn, thus permitting the reamer to be made over anew, and greatly extending its life. These latter features are found in defendant's infringing reamer Type "F," and while there are no claims of this patent found infringed as to these features, particularly as the defendant in Type "F" uses the key of said later patent instead of the block and dowel pins in this patent, nevertheless as the defendant in appropriating the invention uses these advantages of the patent in suit, its such acts must be weighed against it under the well-known authorities. Type "F" also has the detachable portion at the bottom, which acts as a safety bolt and a brace, corresponding to the detachable cross piece or bolt 11, although upon it is provided a spreading bearing with which the cutters in part co-act, that is, in addition to their co-action directly with the "prongs" of the claims 9 and 19 infringed. This Type "F" reamer simulates even more closely in appearance than do the other infringing types, the Wilson underreamers manufactured and sold by complainant, and this has been held an aggravation of infringement, in the nature of unfair competition, as in *Ludwigs v. Payson Mfg. Co.*, 206 F. R. 60, 1913,

cited in Walker on Patents, 5th edition, terminal portion of section 568, on page 630, as follows:

“It has been held in the seventh circuit that when the defendant has not only infringed but has also copied the plaintiff’s structure so closely that he is chargeable with unfair competition, damages for the unfair competition may be recovered in the infringement suit regardless of the citizenship of the parties. The reason given is that the unfair competition is an aggravation of the infringement.”

Other claims of the patent in suit, which were urged at the trial and hearing and which relate considerably to elemental portions of the underreamer, or details thereof, have been found not infringed, including claims 16 and 17 of the patent in suit for the cutters themselves. The decree finds all these claims valid and unanticipated, and while this is not the time to put forth fully our views as to the finding of non-infringement as to these claims, we may assert that, under the authorities, a cross-appeal, or appeal by complainant, will in due time be taken to Your Honors in this cause, from such finding, and Your Honors will be asked to find these other valid and unanticipated claims likewise infringed. It is appellee’s belief that if claim 9 calling for prongs provided with projecting lugs at their lower ends is infringed in defendant’s reamers, claim 10 is likewise infringed, although claim 10 has not the other features of the combination of claim 9; and so with respect to many of the other claims found valid but not infringed, and particularly with respect to claims 16 and 17, which call for the underreamer cutters each having two

shoulders with a bearing face on the inner side of each shoulder; for, these cutters and their shoulders and their bearing faces are the elements of claim 19 found infringed. Claim 10, in fact, put together with either claim 16 or 17, would produce the substance of claim 19, with the further limitation to the lugs at the lower ends of the prongs. This limitation is likewise found in claim 9. It is very true that neither claim 10, 16 or 17 is for a *combination*, and that the defendant does not use the “prong” construction for the purpose of permitting close collapsion of the cutters, but uses the “prong” features inasmuch as they are the *carrying parts* of the lugs which defendant also uses, and in Type “F” to permit assembling and remachining. Therefore, giving claim 10 such a construction as would involve the provision of the prongs for the purpose of permitting close collapsion of the cutters such claim 10 is not infringed. But that is not the *only* construction to which claim 10 is entitled. Claims 16 and 17 were found not infringed particularly because of voluntary limitations introduced within the specification, and which the court held barred a broad enough interpretation of such claims to cover the defendant’s cutters *per se*. Of course, in considering claims 9 and 19, any *such limitations in claims 16 and 17 are not to be considered, because claims 9 and 19 are to be construed with respect to the novel entities thereof*, and not with respect to any specific considerations of their parts and features, as within the doctrine of *Yesbera v. Hardesty*, 166 Fed. 120, 125, (C. C. A.), as follows:

“In a combination patent there are no unpatented features in the sense that they are separable from

the patented ones, and no one of the elements is patented. They may all be old and not patentable at all unless there is some new combination of them. The point to be emphasized is that the law looks not at the elements or factors of an invented combination as a subject for a patent, *but only to the combination itself as a unit distinct from its parts*, and in such case there could be no comparison of patented and unpatented parts.”

Also, on this question of unity or entity of combination claims, viewing such entities at another angle, it was said in *Gormley & Jeffrey Mfg. Co. v. Stanley Cycle Mfg. Co.*, 90 Fed., 280:

“Of course the claim cannot be defeated by showing that each of its elements separately considered, was old. The defendants must prove that the combination was old. If they fail in this, they fail irretrievably.”

Therefore, the infringement or non-infringement of claims 10, 16 and 17, and others found by the trial court not to be infringed, is not controlling with respect to infringement of claims 9 and 19.

Bearing in mind, as we have heretofore pointed out, that the term “prongs” is to be construed not technically, according to its exact definitions in general usage, inasmuch as the courts have held that the patentee creates his own dictionary in his specification and claims and the relation that they bear to the drawings of the patent, and bearing in mind that under the decision above *names* mean nothing, but functions are what are to be determined, it is clear that, with due

consistency, claims 9 and 19 having been found infringed, each and every of the other claims 2, 4, 8, 10, 11, 12, 13, 14 and 19 urged in the pleadings of this consolidated cause should have been found infringed, and also claims 16 and 17 unless Your Honors should find that the patentee so specifically limited himself in the file wrapper and contents of his application that these claims cannot be read upon the defendant's structures. It is, we contend, hardly proper to say that any of these claims are really for articles of manufacture, but rather that those which are not for complete underreamer combinations are for subjunctive features of the complete patented reamer, and it is proper to cover such subjunctive features or elements or groups of elements by claims in the same patent as that which claims the combination, or in and by a separate patent, as it was in *Wright Co. v. Herring-Curtiss Co. et al.*, 204 F. 97, on such subjunctive features:

“It is not essential to the validity of a claim of a patent that all parts of the machine, or all parts specified in other claims, which are necessary to its operativeness, should be included therein; but where the patent is for a combination, a claim may be for a sub combination, which, although not operative alone, is new and capable of cooperating with other things, which would be understood by those skilled in the art, or for which reference may be had to the specification to produce a useful result.”

As said in another case:

“If any of the elements are new and useful, and show invention, these may be claimed and patented. This may be done in a separate patent or by separ-

ate and distinct claims in the patent covering the combination, even though such parts are without utility, save in combination with other parts of the device.”

If now we take up claim 2, we find therein a sub-combination comprising the prongs with upper and lower bearings for the cutters, the lugs on the prongs constituting such lower bearings, and the ends of the lugs having beveled end faces. It is with these beveled end faces that the bearings 16 co-operate in initial expansion and final contraction. Clearly these features are all found in the infringing reamers of appellant. Likewise, in claim 4 we find the provision of prongs with shoulders on their inner faces to form ways for the cutters. This structure is clearly, in specific interpretation, found in the infringing reamer Type “F” in which there is the pronged formation consisting of furcations at the lower end of the body, and permitting remachining of the body and assembling of the parts at the bottom of the body.

Term “Prongs” Used by Wilson Patent in Three Cases or Senses.

It may be said that the term “prongs” is used in three senses in the patent in suit:—First, to indicate that forked formation which permits the cutters to more closely approach each other in collapsion; second, that subdivided or bifurcated formation which permits assembling of the cutters with the other parts at the bottom of the reamer and permits remachining of the lower end of the reamer body; and, third, that formation at the lower end of the body which carries ways 3

and lugs 2' with the spreading bearings 9 with which the bearing faces 4³ on the lateral cutter shoulders co-act, and having beveled end faces 17 with which the bearings 16 co-act. Claim 4 then is infringed in the second and third of these respects by the Type "F" underreamer of defendant.

Claim 8 also certainly should have been found infringed with claim 9, by the Type "F," reamer in cases 2 and 3 above. It is not limited to the lugs, nor to the specific cutters, nor to the lateral shoulders on the cutters, but it brings in further the operative element of means for operating the cutters, and the detachable cross piece 11, which is found in the Type "F" reamer, irrespective of whether that detachable cross piece has the bearing block on it or not.

Claims 2 and 10 disposed of above, should have been found infringed in all the types of reamers under case 3 above, and of course in Type "F" under cases 2 and 3.

Claims 11, 12, 13, 14 and 15 are clearly infringed in all the defendant's devices under case 3 above, and particularly by Type "F" underreamer under case 2.

Findings of Infringement Too Limited.

We urge that this Honorable Court consider the reasonableness and logic of these contentions with respect to the propriety of such further findings of infringement, which findings, though not urged to be made on this appeal, point unerringly and emphatically to the certain justice and merit of an affirmance of the decree of the court below with respect to infringement of the only two claims, namely, 9 and 19, which were

found infringed. To dismiss the appellee from this court without such an affirmance as to either of these claims, would be clear subtraction from rights and equities which already have been submitted, as we show above, to a process of reduction not warranted, we contend, within the very logic, and supportable logic, attaching to such findings of infringement as were made. We believe that as bearing upon the issues which are before Your Honors it is thus proper to discuss and weigh the findings of infringement which were made in the light of the further findings of infringement which might have been made, and to state to Your Honors that in view of the paucity of the prior art, as relating to the Wilson invention, it is our contention, and will be upon such prospective cross appeal, that further of the claims of this patent should be found infringed, having been found unanticipated and valid, *and that appellee was not decreed enough in this case.*

Big Step in Art Taken by Wilson.

There remains to be discussed preliminarily here, in connection with the discussion of the patent in suit, and with this preliminary collateral discussion concerning infringement, the particular features of novelty, utility, invention, and advantage provided by the Wilson invention and the subjects of claims 9 and 19 of the Wilson patent found infringed. We will see that defendant was driven to the infringement of this patent in order to retain any material portion of the underreamer business, *and thus in spite of the fact that its own patent, or the patent under which it has been and is licensed to operate, namely, Defendant's Exhibit*

Double Patent No. 1, was found by the trial court, immediately preceding the final hearing of the cause at bar, to be the dominant patent in the underreamer art, or to dominate the Wilson underreamer as made under the patent in suit here, and the patent for devices which really, as over against its predecessors, made underreaming a success in California. We will see from the record in the case at bar that these theoretical dominant characteristics of the said Double patent of appellant failed to so standardize the underreamer art as to permit the appellant to maintain any dominant position in the field (which is the true test as to dominance), but that upon the incoming of the Wilson invention as embodied in these combination entity claims 9 and 19, the art was so revolutionized and the appellee so thoroughly took the field as to render the patented Double structure PRACTICALLY OBSOLETE! The wilfulness and necessary wilfulness of the infringement by appellant here is therefore established by the very necessities which drove appellant to such infringement. Neither the defendant's much vaunted Defendant's Exhibit Double Patent No. 1 nor Defendant's Exhibit Double Patent No. 2 nor Defendant's Exhibit Double Patent No. 3 "turned the trick," so to speak, and gave the underreaming art what it demanded. In spite of appellant's efforts, and it is a large and powerful concern, appellee proceeded to place his underreamers with concern after concern who had previously used the Double underreamer, as, for instance, see the testimony of appellee's witness Charles E. Wilcox, commencing at page 387 of the record, and who testifies at record pages 396-401 that some twenty odd large oil produc-

ing companies, such as the Standard Oil Company and the Union Oil Company, have taken up the use of the Wilson underreamer, after previously using the Double underreamers of appellant:—

“Q. 16. Can you state the names of any persons or concerns to whom you have sold any such Wilson reamers during the last year?

A. Yes, sir.

Q. 17. Please do so and state where such concerns are located, giving place and state.

A. Standard Oil Company of Fullerton fields, California; Coalinga Land Company, Coalinga, California; Columbia Oil Company, Fullerton, California; Cornerstone Oil Company, Fullerton fields, California; Dorsby Oil Company, Fullerton fields, California; Burch Oil Company, Vera Canyon, California; Vera Canyon Oil Company, Vera Canyon, California; Union Oil Company, Fullerton fields, California; California County Oil Company, Ventura county, Calif.; Traders Oil Company, Ventura county, Calif.; Standard Oil Company, Newhall fields, California, Central Oil Company, Whittier, California; Standard Oil Company, Whittier, California; Murphy Oil Company, Whittier field, California; Sunset Security Company, Kern County, California; El Camina Oil Company, Kern County, California; Midway Oil Company, Kern County, California; Midway Pacific Oil Company, Kern County, California; Newcenter Oil Company, Kern County, California; Adeline Oil Company, Kern County, California; Knickerbocker Oil Company, Kern County, California; Baltimore Oil Company, Kern County, California; Section 25 Oil Company, Kern

County, California; Boston Pacific Oil Company, Kern County, California; Union Oil Company, Kern County, California.

(Mr. Blakeslee.)

Q. 18. Have you sold each and every one of these concerns during the last twelve months?

Mr. Lyon: Objected to as leading.

A. Well, I have not sold them direct. I believe that there has been that many Wilson reamers sold within that time. This business goes through the supply-houses and I do not get the order direct.

Q. 19. Are you able to say whether or not you have called upon all of these several concerns during the last twelve months?

Mr. Lyon: Same objection.

A. Practically all, yes, sir.

Q. 20. Did you see any reamers in use by any of these concerns at the time of such calls?

A. Yes, sir.

Q. 21. What reamers were they using?

A. They were using Wilson reamers.

Q. 22. Do you know whether any of these concerns had previously used any other reamer than the Wilson reamer?

A. Yes, sir.

Q. 23. And what reamer?

A. The reamer known and spoken of as the Double reamer.

Q. 24. By whom is that reamer made?

A. The Union Tool Company of Los Angeles.

Q. 25. The defendant in this case?

A. I believe so, yes, sir.

Q. 26. You have mentioned the Union Oil Company in a previous answer; do you know whether there is, or has been, any relation between that company and the Union Tool Company just mentioned by you?

Mr. Lyon: Objected to as incompetent, not the best of evidence, hearsay, not in the testimony, and as leading.

Q. 27. Now, the question is, do you know of your own knowledge?

A. No, sir, I don't.

Q. 28. Do you know whether the Union Oil Company ever used any Double reamers.

A. Yes, sir.

Q. 29. And when?

A. Well, they used them all over the state wherever they were drilling, exclusively, up to a couple of years ago. At least I do not know of their ever using any other kind.

Q. 30. Until what time?

A. A couple of years ago.

Q. 31. And then what did they use?

A. Well, they commenced using the Wilson reamers.

Q. 32. And have you ever observed any such use by that company?

Mr. Lyon: Objected to as leading.

A. Yes, sir, I have seen them using the Double reamers.

Q. 33. Now, my question was relative to the Wilson reamers.

A. By the Union Oil Company?

Mr. Lyon: Same objection.

Q. 34. The Union Oil Company.

A. Yes, sir.

Q. 35. When and where?

A. Well, I have seen them used out in the Brea Canyon field.

Q. 36. Where is that?

A. Orange county, California.

Q. 37. Any place else?

A. Yes, sir, I have seen them used in the Fullerton fields.

Q. 38. Where?

A. Orange county, California.

Q. 39. Do you know why the Union Oil Company used the Wilson underreamer after using the Double underreamer?

Mr. Lyon: Objected to as leading, incompetent, no foundation being laid, and calling for a conclusion of the witness and as not being a statement of facts.

A. Well, they thought it was a safer reamer in regard to breakage and that the Wilson reamer had advantages over other types in regard to remachining.

Q. 40. How do you know that they thought so; upon what facts do you base that answer?

Mr. Lyon: Same objections as in the previous question; not bearing any relation, etc.

A. They have very hard formation to drill through in that particular country out there, particularly in the Brea Canyon fields, and they have been trying to get down some of their old wells. They are trying to reach what is known as 'burch sand,' and they had more or less trouble with the breaking of cutters with the Double reamer. I induced them to try the Wilson

reamer; they tried them and have continued to use them since.

Q. 41. Do you know any of the officers of the Union Oil Company?

A. I know Mr. Hill; I believe he is the field superintendent. Also, am slightly acquainted with Mr. Brown, purchasing agent, I believe, and Mr. Pickering, superintendent of the Fullerton field.

Q. 42. Have you at any time *have* any talk with Mr. Pickering about the Wilson reamer?

Mr. Lyon: Objected to as incompetent, hearsay, and not the best *evident*.

Mr. Blakeslee: We are manifestly attempting to show evidence pertinent to the use of underreamers, further pertinent to the quality of the work done thereby and further pertinent to the reamers of the complaint and the defendant.

A. Yes, sir, I have talked with Mr. Pickering regarding the Wilson reamers.

Q. 43. Was this in connection with your service as salesman for the Wilson & Willard Manufacturing Company?

Mr. Lyon: Objected to as leading, incompetent and as calling for a conclusion of the witness; not a statement of facts.

A. Yes, sir.

Q. 44. Can you state any such conversation as you had with Mr. Pickering in this connection?

Mr. Lyon: Objected to as leading, and any such conversation would be objected to as incompetent, hearsay, not the best evidence, and is not being shown that the defendant or any of its officers were present during

such conversation, or in any manner bound thereby, and should be testified to by the parties expressing the opinions and not by hearsay evidence of what such opinion was.

A. Mr. Pickering said he was very well satisfied with the Wilson reamer. One time in particular he sent a Wilson in to be remachined and asked me when it would be back, and requested me to hurry it up as far as possible, that he did not have another Wilson there, and in a general way gave me to understand that he was very well pleased with the reamer.

Q. 45. When did this occur?

A. A year ago, probably; possibly not so long.

Q. 46. Can you state the name of any other concern using the Wilson underreamer at the present time, since using the Double underreamer?

A. The *Coalinde* Land Company, I believe, is using the Wilson reamer.

Mr. Lyon: We move to strike the answer from the record on the ground that it is a mere guess, a conclusion and expression of an opinion of the witness; hearsay, incompetent and not the best evidence.

A. I will state that the *Coalinde* Land Company is using the Wilson reamer at the present time.”

Further showing the extensive adoption of the patented underreamer and its superseding of the Double underreamer, all of which drove the defendant to piracy in order to attempt to hold its place in the field and trade, see the testimony of Hubbard, at that time a salesman for the Wilson & Willard Manufacturing

Company [R. Q. 82 to Q. 107, pp. 411-415], as follows:

“Q. 82. Can you give the name of any concerns that have [342] placed such orders through your efforts in those fields, for Wilson reamers?”

A. Well, there is—I don’t know that they placed their orders through my efforts, but the K. T. & O. and the Standard of Coalinga have placed orders for Wilson reamers.

Q. 83. How recently?

A. Within the last three months, or four months, I should say.

Q. 84. Do you know whether these *interest* had previously used any other type of underreamer?

A. They have used the Double underreamer.

Q. 85. For how long a period of time, if you know?

A. I couldn’t say as to that.

Q. 86. In the fields you have mentioned, approximately, how many concerns, or interests, are actually drilling oil wells at the present time, if you know?

A. Between the Coalinga and Ventura county fields inclusive, there are about twelve or thirteen companies actually engaged.

Q. 87. Have you, or have you not, visited the properties, or certain property, of each of these companies?

A. I have.

Q. 88. Within the last three months?

A. Within the last three months; yes, sir.

Q. 89. And how many of such interests were using the Wilson underreamers in the development of oil wells?

A. Well, out of the twelve or thirteen companies, there were eight or nine of them actively engaged in using the Wilson reamers.

Q. 90. Can you give the names of such companies?

A. The Standard at Coalinga, the K. T. & O. and the Fillmore Oil Syndicate at Fillmore; Brookline at Santa Maria, [343] Ramona Home at Piru, and the Beatty Oil & Development Company at Piru, California.

Q. 91. Has the Western Union Oil Company any properties in those fields?

A. In Santa Maria.

Q. 92. What reamers are they using?

A. Double reamers, at present.

Q. 93. State a little more specifically as to the Standard Oil Company's practice. What reamers are they using?

A. To my knowledge the Standard use the Wilson reamer exclusively in Coalinga, California.

Q. 94. Had they previously used any other under-reamer?

A. I think they had.

Q. 95. What reamer was that?

A. I do not know, that was before my time.

Q. 96. Do you know how many Wilson reamers they have at the present time?

A. No, I could not say as to the number they now have.

Q. 97. Can you mention any specific instances, within your own knowledge of the recent purchase of a Wilson reamer, and the circumstances surrounding such purchase in those fields?

A. For instance, at Ramona Home at Piru, California, they had at least two Double reamers up there which they had broken and with which they had been having a good bit of trouble, losing lugs, so they adapted the Wilson and since that time they have made seventy-five feet of hole where before they could not get ahead at all.

Q. 98. What is the source of your information?

A. Mr. Root, the head driller, and Mr. Bolin, the manager of the company, told me this.

Mr. Lyon: We move to strike the answer from the record and exclude [344] it therefrom, on the ground that it is incompetent, not the best evidence; hearsay.

Mr. Blakeslee: We oppose the motion on the ground that it is what may be called a 'trade report,' showing operations in the field in question.

Q. 99. Did you sell this reamer to this concern?

A. I did not.

Q. 100. Do you know of any other instance in which the Wilson reamer was recently purchased in these fields, where you were acquainted with the circumstances surrounding such purchase?

A. The Brookline at Santa Maria had a very small three-inch hole and had been using the Double reamer. He knew he was going to have trouble in that hole, so he purchased a three-inch Wilson which done the work properly.

Mr. Lyon: We move to strike the last portion of this answer from the record and exclude it therefrom on the ground that it is incompetent, and ask the witness at this time if he has personal knowledge of the

use of such Wilson reamer, or is he simply reporting from hearsay?

A. Mr. Bell, the superintendent, told me these things.

Q. 101. Have you, during the last three months, been to the properties of the California Limited Company, in the Coalinga field?

A. I have.

Q. 102. Do you know whether they are using the Wilson reamer?

A. They are using the Wilson underreamers.

Q. 103. Have you any idea of how many they are using?

A. I could not say as to the number they are using.

Q. 104. Do you know whether they had previously used any [345] other reamer?

A. They had used the Double reamer.

Q. 105. Are they using it at the present time?

A. In the larger sizes.

Q. 106. What type Double reamer are they using, if you know?

A. I cannot say as to that.

Q. 107. Did they give you any intimation as to what their future policy would be with respect to the purchase of reamers?

Mr. Lyon: Objected to as leading and suggestive, and as incompetent; not the best evidence of any such conversation being shown to have taken place in the presence of the defendant, or anyone connected therewith, and we submit that this witness has no personal knowledge of such policy, or alleged policy.

Mr. Blakeslee: We are simply trying to show

trade conditions and the situation with respect to reamers, out of the mouth of this witness who has recently acquainted himself with such conditions.

A. Why, their chief storekeeper, I don't recall his name, told me that they were very well loaded up with Double reamers in the large sizes at the present time, but that in the future, as soon as these larger sizes were used up, he would in all probability, purchase some Wilsons.

Mr. Lyon: We move to strike this from the records upon the grounds stated in the objection."

Also Hubbard [R. Q. 136-161, pp. 420-425], as follows:

"Q. 136. Did you take any steps to ascertain in the fields you have visited as testified to, what breakage, if any, had occurred in the cutters? [350]

Mr. Lyon: Objected to as not being redirect examination.

A. Why I don't—there is an instance I was trying to recall but I don't recall it.

Q. 137. What I mean is, did you make any effort to determine what breakages had occurred in reamers and cutters?

A. Yes, sir, I have.

Q. 138. And how about losses of cutters? Did you make any investigation about that? Losses in the hole?

Mr. Lyon: Objected to on the ground that it is incompetent, not the best evidence, but apparent that the witness can only have hearsay knowledge of, and not

personal knowledge of the subject matter inquired about. Not redirect examination.

A. Why in one instance; I was told by Mr. Root of Ramona Home that they had about fourteen or fifteen cutters lost in the hole.

Mr. Lyon: We move to strike the answer from the records and exclude it therefrom, upon the grounds as stated in the objection to the question, and particularly as it appears that the same is hearsay, incompetent and not the best evidence.

Q. 139. And what type of reamer, or kind of reamer?

Mr. Lyon: Same objection.

A. Double reamer.

Q. 140. Manufactured by what concern?

Mr. Lyon: Same objection.

A. Union Tool Company.

Q. 141. The defendant in this case?

Mr. Lyon: Same objection.

A. Yes, sir. [351]

Q. 142. What causes cutters to be lost in the hole?

Mr. Lyon: Objected to as incompetent, no foundation being laid, and witness not being qualified to answer the question.

A. The breaking out of the dovetails would cause it. And for instance, in underreaming, in pulling out, the Double reamer seems to have a tendency to hang on the bottom of the shoe, and they have to jar it to get the reamer loose; consequently, sometimes they pull the cutters off.

Q. 143. And what do you mean by the shoe?

A. The shoe is the heavy cover on the bottom of the casing.

Q. 144. And the underreaming is performed beneath that shoe, is it not?

A. Yes, sir.

Q. 145. Would breakages of cutters cause losses in the hole, or not?

Mr. Lyon: Objected to as incompetent, witness not being qualified to answer the question, and as leading.

A. It all depends on where they were broken.

Q. 146. Suppose the cutters of the Double reamer were broken at the shanks, or the notched portion of the shanks which you have referred to, during the reaming operation, what would occur with respect to the portions of the cutters beneath such zones of breakage?

Mr. Lyon: Same objection.

A. Of course the portion of the cutter below the breakage would be left in the hole.

Q. 147. Do you know what they have to do before work can be continued, or drilling continued, in a hole in which [352] cutters are lost?

Mr. Lyon: Same objection.

A. They would either have to fish them out, or side-track them.

Q. 148. What is side-tracking?

A. Side-tracking is shoving them off to one side so the casing can go down.

Q. 149. What tool do they side-track with?

Mr. Lyon: Same objection.

A. Well, sometimes they can with the under-reamer, and sometimes they drill them out.

Q. 150. During your trips through the fields which you have visited during the last three months, had you particularly looked for broken cutters?

Mr. Lyon: Objected to as not redirect examination.

A. Not particularly.

Q. 151. Then anything you know about broken cutters, or lost cutters, or breakage of cutters, or strength of cutters in resistance to strains tending to break them, comes from statements that have been made to you by persons in charge of the properties you have visited; is that correct?

A. They have made these statements to me without my asking.

Q. 152. Have you ever been in touch with any of the Beatty Oil Company people?

A. Yes, sir; Mr. Beatty of the Beatty Oil & Development Company.

Q. 153. And when?

Mr. Lyon: Objected to as not redirect examination and as irrelevant [353] and immaterial.

A. Last Saturday was the last I was in touch with Mr. Beatty.

Q. 154. What were the circumstances of that meeting, and where did it take place?

A. I met Mr. Beatty in his office and we took a little machine ride. I also took him down to the Wilson & Willard Manufacturing Company.

Q. 155. Did the question of reamers come up while you were with Mr. Beatty that day?

Mr. Lyon: Objected to as immaterial and as not redirect examination.

A. Yes, sir.

Q. 156. What transpired between you with regard to reamers on that day?

Mr. Lyon: Objected to as incompetent, it being evident that it is an attempt simply to prove a conversation, and it is not shown that the defendant, or any of its officers, or any one connected with the defendant was present at such conversation. The conversation is therefore apparently incompetent and inadmissible and any statement that Mr. Beatty may be alleged to have made at such time, cannot be admitted in the evidence, by the mouth of this witness, the same being incompetent and not the best evidence and such statements not having been made under oath, nor an opportunity offered defendant to cross-examine the maker of such statements.

A. I took Mr. Beatty to the shop and showed him the different reamers in the course of manufacture; showed him the different parts, especially our 'T' bar, showing the great strength of it and introduced him to Mr. Wilson. After our conversation, Mr. Beatty seemed to be convinced that the Wilson was the stronger reamer and on leaving, told us that in all [354] probability in the future he would buy the Wilson reamers.

Mr. Lyon: We move to strike the answer from the record upon each of the grounds stated in the objection to the question.

Q. 157. Did anything transpire at the shop with respect to the efficiency of reamers and cutters in general?

Mr. Lyon: Same objection.

A. Mr. Wilson talked with Mr. Beatty as to the

strength of our cutters, they being stronger than other makes, and as to the material used in those cutters.

Q. 158. Did Mr. Beatty have anything to say in this connection with respect to his experience with reamers and cutters?

Mr. Lyon: Same objection as noted in the last two questions.

A. Mr. Beatty said that he had had a great deal of trouble in *loosing* cutters in the hole.

Q. 159. With what type of underreamer?

Mr. Lyon: Same objection.

A. With the Double reamer.

Q. 160. And what had those losses been due to?

Mr. Lyon: Same objection.

A. The loss of cutters in the hole?

Q. 161. What had such losses been due to; or what had been the cause of such losses?

Mr. Lyon: Same objection.

A. The cause was the breaking of the cutters in the hole.”

There are many reasons for all this, many superiorities and points and features of advantage and better construction, which were given to the underreaming art by the Wilson invention of the patent in suit, and adopted by defendant, and the specification of such patent has this to say in lines 8 to 39, inclusive, page 1:

“Objects of this invention are to provide an underreamer of superior strength and of superior width and expansion of cutters so as to enable reaming as great a portion of the circumference of the hole as possible at each stroke, to insure greater safety against losing

the cutters from the body while reaming, to avoid the necessity of a middle joint in the mandrel or reamer body, and to leave a maximum open space between the cutters to receive the loose material or sludge at the bottom of the well or other opening during the operation of drilling.

By this invention it is possible to increase the strength of the cross or T which suspends the cutters.

In this invention a cross or T formed of a single forging is provided for suspending the cutters.

Another decided advantage is simplicity and convenience of attaching and removing the cutters and suspending devices from the reamer body.

Another advantage is facility of collapsing the cutters. I so construct the mouth of the underreamer as to dispense with stock between the collapsed cutters, thus enabling the cutters to close together. This feature makes extreme expansion possible and makes the use of maximum amount of stock in shanks of cutters possible, thus insuring maximum strength of cutters."

Appellant Uses Substantially All Wilson Features.

Of these features of advantage, practically all of the same are embodied in the infringing reamers here, with the exception of the close collapse of the cutters between the prongs of the fork, and more of such features are found in the Type "F" infringing reamer than in the original so-called "Improved" Double reamer, and Types "D" and "E," all of which have been found to infringe. With respect to the cutter elements, namely, the cutter 4, and the several parts and features thereof, and which cutters are included

in the combination claims 9 and 10 found infringed, William W. Wilson, testifying as expert on behalf of complainant, has the following to say, [R. pp. 267, 268, 269]:

“A. The great width of the part 4 permits the cutter to ream a comparatively large part of the circumference of the hole at each stroke, and, therefore, making for faster reaming and more certain reaming of the entire circumference of the hole. The placing of the bearing-faces 4³ in the body of the cutter, as shown, produces a substantial bearing-face at the outer portion of the cutter body more firmly and securely bracing the cutter against strains caused in use, particularly those applied on one side of the cutter or tending to have a twisting action on the cutter body. The placing of the expansion-bearing face 4³ low down on the cutter body permits the cutter to be braced at a point more in line with the cutting edges of the cutter, thus placing a reduced bearing action on the cutter-shank than would be the case were this bearing placed higher up. The enlargement of the cutter at this point permits the placing in this portion of the cutter a greater quantity of metal, which makes for longer wear and greater ability to stand abuse. The placing of expansion-bearing face on the cutter body permits a longer projection of the cutters below this point to be used, thus making for longer wear and permitting the cutter to be dressed more times before it is worn out.

Q. 17. (By Mr. Blakeslee.) What effect upon the cutting action or cutting arrangement of the cutter does the provision of the lateral enlargements or

shoulders thereof in the cutters of the Wilson patent have?

A. This lateral enlargement of the body of the cutter over the shank as shown in Figure 9 of the patent permits an increased width of cutting face on the cutter when in reaming position, as shown in Figure 4, which causes the cutting face to embrace more of the entire circumference of the cutting circle, causing the reamer to ream more at each stroke of the tool, which makes for faster reaming and more certain reaming. The great difficulty found with narrow cutters was that they tend to start a key-seat in the hole or grooves down the side of the hole in which the cutters work, preventing the reamer from rotating and preventing a complete reaming of the hole, thus preventing the possible lowering of the pipe past this point. In order to overcome this, the tools are fed very slowly with the narrow cutter reamer so as to make as sure as possible that the cutters have engaged the entire circumference of the hole at the point where the reaming is in progress.”

See the testimony of the same witness commencing at Q. 18, p. 269, to and including Q. 45, p. 284, R., in which the complainants point out the completeness with which the improved infringing Double underreamers of appellant have superseded the “old style Double underreamer,” namely, that of the Double patent, Defendant’s Exhibit Double Patent No. 1, and in which the witness further compares the cutter structures of the old style Double reamer with the cutter structures of the improved Double reamer, and the

cutter structures of the improved Double reamer with the cutter structures of the Wilson patent reamer, and the co-operation of such infringing cutters with the co-acting parts of the bodies of the underreamers, producing expansion and collapsion, and taking inthrust, preventing rotatory action, and taking upthrust, and the like. It is to be borne in mind that this testimony was taken prior to the more flagrant infringement by appellant in and by the manufacture and sale of the Type "F" underreamer. That reamer was produced subsequent to the commencement of taking proofs in this case, and after its production the new bill of complaint in sub-cause B-62 was filed, and in which the charge of infringement was enlarged, and which cause was consolidated with sub-cause A-4, of the consolidated cause A-4-B-62, such *prima facie* proofs theretofore taken in sub-cause A-4 being made *prima facie* proofs in the consolidated cause, by the order of the trial court. When this Type "F" reamer was introduced in evidence, this same witness compared the same with the Wilson patent in suit, and there is shown in this testimony the more elaborate infringement in Type "F," and the appropriation in this reamer of the key feature by appellant's interests from Wilson the appellee, as established in 227 Fed. 607, *supra*, and which Type "F" is assembled at the bottom like the Wilson underreamer and can be remachined like the Wilson underreamer [see R. Qs. 239-273, pp. 527-539] which we quote here as follows:

"Q. 239. Please now compare Complainant's Exhibit Reamer Type 'F,' also known as 'Complainant's Exhibit Defendant's Reamer Type "F," etc.,' with the

Wilson patent in suit, namely, 'Complainant's Exhibit Wilson Patent,' with respect to the construction, combination, interrelation and operation of parts and features.

A. The body in both the underreamers, Complainant's Exhibit Defendant's Reamer Type 'F' and the underreamer shown in 'Complainant's Exhibit Wilson Patent,' both consist of a body surmounted by a square and suitable screw-threaded joint for the attachment of a string of tools. The main body is in one single piece in both cases. In this body is a central bore extending up in rather close proximity to the upper portion of the body. In this bore is placed a spring for flexibly supporting the underreamer-cutters. At the lower end of the bore are fork-mouthed extensions, which extensions have on their inner faces grooves or dovetail ways for the retention of the cutters, these cooperating with the dovetails on the shanks of the cutters. At the lower end of the prongs are bearing faces which bear against the inner faces of the cutters on the body of the cutters, and in the 'Complainant's Exhibit Defendant's Reamer' this bearing extends somewhat up on the shank of the cutter. On the lower end of the prongs there are suitable holes for the reception of a bolt, which bolt is threaded into one of the prongs after passing through the hole in the other one. This bolt in Complainant's Exhibit Defendant's Reamer Type 'F' is also arranged to support a loose or movable block which does not exist in the underreamer described in 'Complainant's Exhibit Wilson Patent.' This block forms an extension of the bearing faces on the lower ends of the prongs, which bearing

faces co-act with the cutters when in expanded position. Also, on the lower ends of the prongs on both underreamers are upwardly and outwardly inclined bearing-faces. The angles of this upward and outward inclination of the lowermost bearing-faces on the prongs of 'Complainant's Exhibit Defendant's Reamer,' as near as I can measure it, is identically the same as that shown in the drawings of 'Complainant's Exhibit Wilson Patent.' These are for the purpose of co-acting with the shoulders of the cutters when the cutters are in collapsed position, and the effect of this angle is to regulate the pressure of the cutter against the walls of the casing when passing into and out of the well. The cutters in both cases consist of a body surmounted by a shank with the dovetails on the shank, a shoe-notch on the outer edge of the shank, and suitable tapered bearing-face at the lower end of the shank, which bearing-face is intended to ride against the casing when the cutters are collapsed, and a tapered inclined portion just above the shoe-notch. The body of the cutters consists of a curved exterior portion meeting with two parallel lateral faces. The upper corners of the meetings of these surfaces with the curved surface are curved or rounded as shown at 16 in the drawing. The inside portion of the body is cut out or relieved of the upper curved portion, below which is a straight portion or plane surface at right angles to the lateral planes of the cutter body. Above this in both cases is a plane face 4³ in the drawing, which forms bearing-faces on the outward extensions or shoulders of the body of the cutter beyond the shank in both cases. The upper end of the shank of the

cutter shows in 'Complainant's Exhibit Wilson Patent' as a slot 18, against which the prong or extension 5 of the cross 5', or, as we now call it, the tee bar of the underreamer bears. In the Defendant's Exhibit Defendant's Reamer Type 'F' the cutter has near the upper end of the shank a square lug projecting inwardly, with a shoulder which bears against a projection on the lower end of the tee bar or cross. At the upper end of the tee bar or cross in both cases are suitable threads for the reception of the nut 19 in the drawing; also a hole for a cotterpin 20, and the cotterpin 20 for the supporting of the upper end of the spring 6. The lower end of the spring 6 in 'Complainant's Exhibit Wilson Patent' is supported upon a block 7 which, in turn, is supported by pins 8 which rest against holes in the body. In Complainant's Exhibit Defendant's Reamer Type 'F,' the lower end of the spring bears against a key, the lower edge of the key resting against holes or slots in the sides of the underreamer body. The key in this case has suitable downward projections for retaining the same in the body and passes through an enlarged slot in the tee bar. In 'Complainant's Exhibit Wilson Patent' the block consists of a cylindrical piece with suitable reception notches at the sides of the pins 8, the lower portion of the block extending down and forming a thrust-bearing between the upper ends of the cutter-shanks. In 'Complainant's Exhibit Defendant's Reamer' there are shoulders on the inside of the prongs which form a slight bearing at the upper end of the shank of the cutter to prevent the inward displacement of the shanks. However, the main portion of this is supported by the pressure of the lug at the

inward and upward end of the cutter-shank against the lower end of the tee bar. The dovetail ways 4² on the cutters of 'Complainant's Exhibit Wilson Patent' engage in the body with shoulders 2", which shoulders are parallel to the axis of the underreamer body. In Complainant's Exhibit Defendant's Reamer Type 'F' the shoulders on the shank of the cutter bear against upwardly and inwardly inclined dovetailed ways on the insides of the prongs of the underreamer body. The bearing-faces 9 at the lower ends of the prongs on the underreamer shown in 'Complainant's Exhibit Wilson Patent' are inclined upwardly and outwardly, while those shown on Complainant's Exhibit Reamer Type 'F' are parallel. On the shank of the cutter of Complainant's Exhibit Defendant's Reamer Type 'F,' at the lower end of the shank where the same joins the body of the cutter, and outside of the dovetailed ways on the shank, are auxiliary dovetail ways which extend upwardly for a distance of about one inch in this exhibit. These dovetailed ways do not appear on the cutters of 'Complainant's Exhibit Wilson Patent Drawings.' On the back of the shank of the cutter or inside of the same is a notch with a short downwardly and inwardly inclined plane at its lower edge, and its upward edge is an inwardly inclined plane which is cut in the back of this cutter for the purpose of preventing it collapsing over the inserted block which rests on the bottom bolt and also upon the slight inward shoulders on the lower ends of the prongs. No such notching appears on 'Complainant's Exhibit Wilson Patent Cutters.'

Q. 240. Now, what is the function of the detach-

able block held in place by the detachable bottom bolt in Complainant's Exhibit Defendant's Reamer Type 'F'?

A. This block is for the purpose of forming an extension of the bearing-faces at the lower ends of the prongs in the underreamer body.

Q. 241. Please state what effect upon the method of use and operation of this reamer will be produced by the removal of said detachable block.

A. None whatever. The underreamer will be as operative without the block as it is with it.

Q. 242. What is the purpose of the provision of this block by the manufacturer of this underreamer, as you make out?

A. It is undoubtedly for the purpose of differentiating this underreamer from the Wilson underreamer by attempting to make the bearing surfaces on the lower ends of the prongs of the underreamer continuous, while in the case of the Wilson underreamer they are separate and distinct. The block can be placed in position only with difficulty, and after the lower end of the underreamer body is worn by repeated contact with the stone and drillings in the bottom of the hole, it would probably be very difficult to extract the block from the lower end of the reamer body and would likely be next to impossible for the drillers in the field to replace the same after it has once been extracted.

Q. 243. In your previous testimony in this case reference has been made to that portion of the Double underreamer or the underreamer of the Union Tool Company, defendant herein, namely, at the lower portion of the body of such reamer, as the hollow-slotted

extension, such as is shown in 'Complainant's Exhibit Improved Double Reamer and Cutters.' Do you find any such hollow-slotted extension in Complainant's Exhibit Defendant's Reamer Type 'F'?

A. No, sir.

Q. 244. Do you or do you not find in the detachable block at the lower end of the body of this last-named reamer, Type F, both a hollow and a slot?

A. No, sir.

Q. 245. What do you find there?

A. Simply a horizontal hole through the block.

Q. 246. Does the tee bar or spring-actuated rod, or any part thereof, play through this detachable block, or does it not?

A. No, sir. Probably the lowest limit of the spring-actuated rod may butt against the block. This action is similar to that taken in the old hollow-slotted extension reamer by the key butting against the lower end of the slots in the hollow-slotted extension.

Q. 247. Which keys do you refer to?

A. The loosely mounted key passing through the spring-actuated rod of the reamer, 'Complainant's Exhibit Double Improved Reamer and Cutters,' like that used in this type of reamer.

Q. 248. And what is the function of that key?

A. The key was to support and attach the cutters to the spring-actuated rod.

Q. 249. Now, referring to the key in Complainant's Exhibit Defendant's Reamer Type 'F,' which you have located as being held in holes or openings in the body and passing through a slot in the spring-actuated rod, have you ever seen any such key in any other type of

underreamer for taking the pressure at the lower end of the spring surrounding the spring-actuated rod?

A. Yes, sir.

Q. 250. In what other type of underreamer?

A. In the Wilson underreamers as manufactured by the Wilson & Willard Manufacturing Company.

Q. 251. For how long a period of time?

A. Since the spring of 1911.

Q. 252. When did you first see such a key embodied in the construction of a reamer known by you to have been manufactured by the defendant Union Tool Company?

A. In this Exhibit Complainant's Exhibit Defendant's Reamer Type 'F' when it was brought into the shop of the Wilson & Willard Manufacturing Company about three months ago.

Q. 253. Do you know whether any letters patent of the United States have issued for an underreamer disclosing and claiming such a key in combination with the other parts and features?

A. Yes, sir. I have seen the patent drawings in the Patent Gazette, and also copies of the patent as forwarded from the patent office and issued to Robert E. Bole for such a key device as applied to an underreamer.

Q. 254. Do you know this Robert E. Bole?

A. Yes, sir.

Q. 255. How long have you known him?

A. Since 1906 or seven.

Q. 256. Did you, or did you not, meet him frequently during the period of time since then?

A. Since the fall of 1908 until April of 1912 I met

him quite frequently at the shop of the Wilson & Willard Manufacturing Company, where in the early part of that period he was employed as a machinist, and later on, when he was connected with the Bole Pump Company, in which Mr. Willard was interested, and for which the Wilson & Willard Manufacturing Company built the Bole oil well pumps.

Q. 257. Has said Robert E. Bole any business relations at the present time with the Wilson & Willard Manufacturing Company?

A. No, sir.

Q. 258. When did he sever those relations?

A. Arrangements were made by a settlement on February 1, 1913, and later on our business relations were severed about April, 1913, the Bole pump business at that time being moved away from the Wilson & Willard Manufacturing Company's shop.

Q. 259. Who, if you know, first devised such a key as that patented by said Robert E. Bole and shown in 'Complainant's Exhibit Defendant's Reamer Type F'?

A. Mr. E. C. Wilson.

Q. 260. From whom, if you know, did said Bole obtain his knowledge of said key?

A. Directly or indirectly from Mr. E. C. Wilson.

Q. 261. Do you know whether any person other than said Robert E. Bole holds any interest in such Bole patent covering such key?

A. If I remember correctly, a one-half interest in that patent is assigned to Mr. Edward Double, president of the Union Tool Company of Torrance, California.

Q. 262. That is, the company defendant in this case?

A. Yes, sir.

Q. 263. Did said Bole ever make any contention to your knowledge that he had any interest whatsoever in any invention attaching to such key prior to the time he severed his relations with the Wilson & Willard Manufacturing Company?

A. No, sir. In the frequent conversations had between Mr. Bole and myself between the time the key was gotten up by Mr. E. C. Wilson and the time that relations were severed with Mr. Bole, reference has frequently been made by myself to the invention of this key by Mr. E. C. Wilson, and no statement to the contrary was ever made by Mr. Bole.

Q. 264. At the time of the settlement you referred to as between the Wilson & Willard Manufacturing Company and said Bole, about the first of February, 1913, was anything said with relation to such key?

A. Yes, sir.

Q. 265. What, so far as you know?

A. I believe in January of that year Mr. E. C. Wilson received a letter, which I saw, in which Mr. Bole claimed to have been the original inventor of that type of key. At a conference on the morning of February 1 of that year, prior to the arrangement of the terms of settlement, in the office of the Wilson & Willard Manufacturing Company, there being present E. C. Wilson, Robert E. Bole and myself, and, I believe Mr. A. G. Willard, I turned to Mr. E. C. Wilson and said, 'How about this underreamer key business?' Mr. Wilson turned to Mr. Bole and said, 'Yes, Bob,

how about this key business? What are you going to do with that?' Mr. Bole said, 'You needn't worry about that; I will do nothing further with it.'

Q. 266. What was the general nature of that letter written to your brother during January, 1913, to which you have referred? That is, what attitude did it reflect on the part of Bole, the writer?

A. In this letter Mr. Bole spent most of the letter recalling instances which had happened, and stating that he wished nothing further to do with Mr. E. C. Wilson in a business way except in one regard, and that was in regard to his claim to being the inventor of this underreamer key.

Q. 267. Had Mr. Bole, to your knowledge, ever had any dealings with said Edward Double, president of the Union Tool Company, prior to this time?

A. Not to my knowledge; no, sir. In fact, he had repeatedly expressed his opinion of Mr. Double and the methods of the Union Tool Company in no uncertain terms.

Q. 268. What was the nature of such opinion?

A. He didn't like their methods of doing business did not think their manner of manufacturing other people's articles without license was right.

Q. 269. Since that time has he had any dealings, to your knowledge, with said Edward Double or the Union Tool Company?

A. Yes, sir. At the termination of the relations of the Wilson & Willard Manufacturing Company and Mr. Bole, Mr. Bole made arrangements with Mr. Double to have the Bole pumps manufactured at Torrance, California, at the plant of the Union Tool Com-

pany, of which Mr. Double was president, and to that end he purchased from the Wilson & Willard Manufacturing Company a liner boring-machine for boring the liners for Bole pumps, and had the same shipped to Torrance, to the plant of the Union Tool Company. I happened to be in the plant of the Union Tool Company at Torrance, California, when this machine was brought in to the plant. Some time after that, however, he ceased having these manufactured at Torrance, and established a plant on Santa Fe avenue, in the city of Vernon, which adjoins the city of Los Angeles, and had the liner boring-machine and other apparatus brought to that plant, where, later, I saw the same. He has testified for Mr. Double in a suit which the Union Tool Company has pending against the Wilson & Willard Manufacturing Company.

Q. 270. When the detachable block is in place and held in place by the bottom bolt in Complainant's Exhibit Defendant's Reamer Type 'F,' what is the effect produced upon the expansion and collapsion action of the cutters or bits?

A. It merely tends to assist the action caused by the shoulders on the lower ends of the prongs of the under-reamer body in the expansion and collapsion of the cutters.

Q. 271. What is the function of this key when in place in this reamer?

A. This key supports the lower end of the spring when the parts in the reamer are all in working position, and also limits the downward movement of the spring-actuated rod by the contact of the upper edge of the slot in the spring-actuated rod coming in con-

tact with the upper edge of the key. I now find that by measurement this will not permit the lower end of the spring-actuated rod to come in contact with the inserted block.

Q. 272. So that that block and bottom bolt which holds it in place are for what purpose?

A. For the prevention and loss of the parts out of the underreamer body in case the spring-actuated rod or key are broken.

Q. 273. And as to the block considered by itself when in place?

A. It simply forms an extension of the bearing-faces at the lower ends of the prongs or forks at the lower end of the body."

The testimony last previously quoted is to be read in connection with this testimony, as the various advantages incident to co-operation and co-action of the several parts and features, in the expansion and collapsion of the cutters, the imparting of inthrust and upthrust and outthrust, the prevention of rotatory action, prevention of "key-holing" or "key-seating," the provision of a more effective and extended cutting zone and action of the cutters, provision of more stock in the cutters to "dress out,"—all are present and effective and pertinent in all of the infringing types of reamers, the "Improved" and Types "D," "E" and "F."

It will be seen by reference to pages 574-576 of the record that appellant injected into the proceedings on proofs the alleged Bole invention, being the reamer combination including the key for holding the lower end of the spring as found in the Type "F" infringing

reamer. We refer to this episode of the infringing transactions, from time to time, in this brief, because it strengthens our contentions as to the piratical *intentions* and acts of appellant in and about these infringing underreamers. It remains at this point only to be said that after the issuance of letters patent to appellee's assignee, for this key combination, as hereinabove recited, action was brought pursuant to U. S. Revised Statutes, section 4918, whereupon the trial court ordered such Bole and Double patent cancelled, as having been surreptitiously obtained; all pursuant to the sense and effect of the decision of this Honorable Court in *Wilson et al. v. Double and Bole*, 227 Fed. 607, *supra*.

Important Innovation in the Reamer Art Produced by Wilson.

A careful review of the testimony in this case, heretofore referred to and to which further reference will hereinafter be made, and a careful examination of the patent in suit and the contrasting of the same with the prior art, makes it clear that the Wilson invention here accomplished a radical revolutionizing of the underreamer art, and not, as in some respects might be inferred from the opinions of the Honorable Trial Judge, a *modification* of the Double underreamer construction. We will not now concern ourselves with the one feature of the Wilson invention which permitted a close collapshion of the cutters between the prongs, but concern ourselves with the other important features which attach to the invention as appropriated by the appellant. Let us summarize these leading features briefly:

First, Wilson solved the problem of making a reamer with bottom or end cutters, namely, cutters disposed for operation at the lower end of the body, in which proper expansion and collapsion could be produced and intrust, upthrust and downthrust provided for more efficiently than theretofore; and in which the underreamer parts and members could be assembled at the bottom, in an open mouth; and in which the lower end of the reamer body could be remachined, to extend the life of the underreamer; and further in which a solid tee or cutter-carrying "cross" could be employed, due to the open mouth formation at the bottom of the reamer body.

What is to be borne in mind in these connections is that all of these highly advantageous and meritorious and efficient features and characteristics were made possible by the Wilson invention, and it required a completely novel underreamer conception in order to accomplish so many desired and hitherto unattained features and characteristics all in and by means of a compact, strong, operative and efficient combination.

Second, the Wilson invention in permitting the use of such fixed tee in place of a detachable cutter-holding part or key such as found in the Double patents 1, 2 and 3, made it possible to eliminate one of the most serious weaknesses in the Double underreamer, namely, that weakness occasioned by the slotting through the Double cutters to produce the key sockets or eyes in which the detachable cutter suspending key was seated, such key being driven through such pockets to assemble

the cutters with the rod. This "tee" is found in Type "F."

Third, the Wilson invention permitted the use of cutters the bodies of which are of maximum width, producing, first, greater resistance to wear and abrasion in the hole; second, maximum width or extent of cutting edges and greater reaming performance per stroke; third, maximum amount of stock to be used in dressing out the cutter bodies in sharpening the same; fourth, a satisfactory and indispensable bracing of the cutters against the body of the reamer both to impart inthrust and to prevent rotatory action and consequent strain upon and breakage of the dove-tails or ways or shoulders upon the cutter shanks and the body; fifth, the prevention of "key-holing," or "key-seating," or the cutting of channels in the formation to be underreamed rather than complete reduction or cutting away of the shoulders or wall portion to be reamed.

Fourth, with respect to the solid tee or integral tee and rod, the Wilson invention, including the provision of the open mouth at the bottom of the reamer body, permitted the use of such heavy strong tee and its rod and their introduction within the mouth of the underreamer, with all the attendant advantages, including the elimination of the objectionable and dangerous features present in the Double underreamer and consisting in the enlarging by wear of the hole in the rod in which the key was seated, so as to cause lost motion and permit the cutters to play upon their support at the cutter key, resulting in an unequal presentation of the cutters to the shoe at the lower end of the casing,

whereby the cutters frequently became jammed in the shoe, requiring either that the whole string of casing be withdrawn, to remove the reamer from the hole, or that one or both cutters be stripped from the reamer and lost in the hole if sufficient strain was resorted to in order to forcibly trip the reamer or collapse it into the casing.

Fifth, the open mouth formation of the Wilson reamer likewise permitted the use of the detachable safety bolt II at the bottom of the fork or bifurcated formation, such safety bolt preventing the cutters from dropping and being lost in the hole in case breakage took place in the cutter-supporting rod or the tee thereof; and such safety bolt in turn, by its detachability, permitting the parts of the underreamer to be assembled at the open lower mouth thereof.

Sixth, the provision of a detachable holding means or seat for the lower end of the spring of the cutter suspending rod, such as the block 7 or the key employed in the Wilson exhibit reamer and the Type "F" infringing reamer, in place of the fixed shoulder for the lower end of the spring in the Double patented reamers, permitted the whole underreamer body to be made in one piece, eliminating the time-consuming, weak, dangerous and readily breakable middle joint or "sub," which is found in Defendant's Exhibits Double Patents; and which permitted the body of the underreamer and the other parts thereof to be removed and reassembled at the lower end of the reamer. These middle joints or subs are tubular or hollow and weaker than the usual joint found at other portions of the string of tools.

All of the above features, characteristics, advantages, benefits and elements and parts are found embodied in the infringing underreamers of appellant, including Type "F," and the Type "F" reamer includes each and every of the same. The opinion of the Honorable Trial Judge rather indicates that the appellant has appropriated possibly only one-half of the invention of the patent in suit and the various features and merits thereof. We believe that Your Honors will increase this percentage in view of the statement just made, and the further statement that the only and single feature of the Wilson invention which the defendant did not appropriate was the collapsion of the cutters between the prongs. This is an added reason for Your Honors to determine here and upon this appeal, irrespective of the prospective cross-appeal, that any limitation of the findings in the decree of the lower court would be a further subtraction from the real findings of infringement to which the appellee is entitled. To fail to affirm such decree as to each of claims 9 and 19 would be to cut away from under the appellee part of the equitable and legal support to which, as we have above pointed out, he is entitled, not in toto, but only in a partial apprehension of the extent to which the claims of the patent in suit have been infringed. When we consider to what range and extent appellant has imitated, robbed, appropriated and pirated in its infringement, all the more reason appears for jealously safe-guarding to appellee that modicum of finding of infringement which appears in the decree of the lower court. While the claims 9 and 19 found infringed are comprehensive combination claims, nevertheless the rights of appellee

under his numerous claims, found valid and unanticipated, should not be diminished or imperiled by any further judicial process of restriction. To do so would possibly be to throw open the door to appellant so as to permit further flagrant and extensive invasions of the broad and substantial territory lying within the meets and bounds of Wilson's invention.

Right here we wish to invite Your Honors' attention to the ingenuity involved in the inventive conception of the patent, which provided, in one form, for an open-mouth underreamer body with a central cavity within which assembling of the parts could take place (as in the Type "F" of defendant), and likewise and in the face of the provision of such central cavity further provided for a more efficient, strong, safe and effective expansion and bracing of the cutters than in the prior art. The very presence of such central cavity flies in the very face of the teaching of the prior art, and particularly of the Double patented reamers, and *invites* (as its first suggestion) weakness in the other relations and co-actions and structures or parts. The cavity is right in the path of play of the expanding or contracting zone of the cutters and in the zone of cutter service. Were a road engineer to state that while excavating a great central ditch in the road, he could make a stronger and safer road, with which vehicle wheels would have better tractive engagement and which vehicles might traverse with greater stability and resistance to overturning, he would be scoffed at—until he proved it as Wilson has done in an analogous mechanical and physical case. This central excavation or cavity is clearly present in defendant's Type "F"

reamer, with the added advantages pertinent to assembling at the bottom and remachining, and the properly braced relation between the cutters and body is as equally present there as it is in the other infringing reamers of defendant. Prior to Wilson the idea was to expand entirely by inwardly directed shoulders or surfaces entirely under or within the bodies or shanks of the cutters. Wilson conceived the provision of the lateral shoulders and the co-operating lateral surfaces upon the body for expansion, collapsion, inthrust and prevention of rotatory action and the like, with the attendant advantages of wider cutting area and the like. In spite of all above said, the ingenuity of the invention was such that all of these other attributes and qualities, including greater strength, resistance to rotatory action, great cutting area, etc., were obtained to a degree hitherto unapproached in this art. It was all accomplished by a complete rearrangement and disposition of features and material, *so that it may properly be said that the Wilson patent stands at the head of an entirely new family or order of underreamers.* This is not the less true because we find in such prior reamers as the Defendant's Exhibit Double Patent No. 3 spaced stub projections 3 and 3' for supporting part of the underreamer body; nor because we find in Defendant's Exhibit Jones Removable Bowl Reamer spaced ways for cutters, *surrounded by a bowl with which the cutters have to co-operate in expansion and collapsion.* The ingenuity of the Wilson invention had it that nothing aside from prongs and cutters and upthrust on the body was required in all of the underreamer expanding, collapsing and working actions and

strain resistances. No bowl was required and no part of the body had to be removed in order to assemble together the cutters and other features. In the Jones Removable Bowl reamer we will find that the assembling had to take place at the upper end of the hollow body after detachment of a "sub" or joint, inasmuch as the spring surrounding the rod could not be entered between the spaced ways at the bottom of the reamer. In order to set up the nut at the upper end of the spring the "sub" or joint had to be removed, even had it been possible, which it was not, to introduce the spring from the bottom of the reamer. In the Defendant's Exhibit Double Patent No. 3, when the parts had once been assembled and the pin 22 driven into place, there was to be no more assembling of the parts of the body and the other features at the lower end of the body. In fact, there is no indication from this patent that the parts were ever to be assembled at the lower end of the body, for the specification does not even refer to the pin 22 which holds the parts together as being removable after once put into place, nor does it refer to assembling or disassembling the parts in any manner whatsoever. Manifestly the spring and rod were to be introduced at the upper end of the body, for which operation it was necessary to remove the sub or joint clearly shown in fragment in figure 3 in the drawing. In other words, neither this Double Patent No. 3 nor the Jones Removable Bowl reamer, nor any other prior thing, suggests in any respect the teaching of the invention as to mode and method of assembling and disassembling, and this is evident from the inspection of this Double Patent No. 3 type reamer

offered in evidence in these reamer suits. The pin is shown fixedly in place and impossible of removing. *And this is as far as the prior art goes, with the exception of the O'Donnell and Willard underreamer, in which it was necessary practically (or impractically) to take the reamer body apart in order to disassemble its features.* With the Wilson invention no "sub" or joint had to be removed, and no stationary wall or hollow slotted extension or body part whatsoever had to be displaced or disturbed in the quick and ready disassembling of the parts as for removing the cutters for sharpening. *And no one of these prior reamers could be remachined at the lower end, as that would cut away the spring-holding shoulder.* Inasmuch as these leading and important features have been appropriated by the appellant in Type "F" underreamer, we urge that infringement of the Wilson patent is more forcibly and extensively shown than was appreciated by the Honorable Trial Judge.

The Depositions of the Witnesses Griffin and Knight, Particularly on Cross, Supports Our Contention as to Want of Any Anticipation of the Wilson Invention.

To show the importance of this invention and the actual necessity of its employment in the field to insure satisfactory underreaming and permit the carrying on of oil well drilling, we invite Your Honors' attention particularly to the depositions of witnesses Bailey [R. 439] and Pickering [R. 426]. Briefly, Bailey says that he is an oil well operator and driller by occupation, operating in the famous Fullerton fields, Orange county,

California, and is running three crews drilling and overhauling oil wells. He states he has been in the oil well industry steadily for 12 years in that territory and is general manager and president of the Olinda Land Company. He states that he has general supervision of the whole property, sometimes taking charge when the field superintendent is absent and giving full personal supervision to drilling. He says he has used the underreamers of the defendant here and also those of complainant, having first used the defendant's Double underreamer; that, at the time of testifying he had used the Wilson reamer about six months but had previously used the defendant's reamer for several years. He says he had a great deal of trouble with the six-inch Double reamer on account of the lugs or cutters breaking off, and after investigating the Wilson bought one and tried it out with the result that he probably will never use another Double six-inch reamer. He says he never lost a Wilson underreamer cutter since buying one of the Wilson reamers, but had repeatedly lost Double reamer cutters necessitating drilling them up, (that is, chipping them to pieces in the well), which he says is an expense and a loss of time and material. He says that these cutters would break off. He says that the breakage of the Double cutters was due partly to its weakness across the shank. He says as far as he knows his people have not lost or broken any Wilson cutters and had such breakage occurred it would have come to his notice. He says that he has only used the six-inch size of the Wilson reamer and as far as that goes it will be his preference in the future. This deposition shows how the complainant's reamer

superseded the reamer of defendant, with this large oil well developing interest, and it is a specific instance, in detail recital, of the many instances where the Double reamer was driven from use in the field by the Wilson reamer, as set forth in the testimony of Wilcox quoted *supra*.

The deposition of James Pickering sets forth that he is foreman of the Union Oil Company in the Orange county district, having been in the oil well business twenty-three or four years; that his work has been principally drilling wells in Ventura county and Los Angeles and Orange counties, all in California; that he has used underreamers of the Double type and of most other types and also used the Wilson reamers. He says he thinks he has used the Double reamer ever since it was gotten out and first had his experience with the Wilson reamer about two years prior to the time of giving his testimony. He says he used the first Wilson until it wore out and then got a new one. He says at the time of testifying he is using a 6½-inch Wilson reamer in the only well that his people are working on, down in Orange county. He says they never lost or broke a Wilson cutter, but in the use of the Double reamers in the smaller sizes they have broken them several times. He says that the breakage has occurred across the shank of the Double cutters, in its weakest part near the eye for the key and also down below the end in the shank of the cutter. He says his people started in with the first type of Double reamer gotten out and used all the types produced by him until his later types. It will be noted that he

experienced breakage in the cutters of the defendant's reamer Type "C," and that is a type as to which specific infringement was not urged. The later Types "D," "E" and "F," were aimed more particularly at preventing such breakage, as was the earlier Double "Improved" reamer, by providing lateral shoulders with bearing-faces 4³ upon the cutters and the extended spreading bearings 9 upon the body to co-operate with the same. Type "C," we contend, was found too weak in its cutters, and did not have the advantages of the type found to infringe, and that is why the defendant produced its later types, including Type "F" which more flagrantly infringes than any of the other types. The witness states that he never broke one of the cutters in the later Type "E" Double reamer. The questions and answers of the witness, 211 to 214 inclusive, showing the advantages of the infringing reamers, such as Types "D" and "E," over the reamer Type "C," of defendant, is as follows:

"Q. 211. I call your attention to the fact that in Claimant's Exhibit Reamer Type 'E' and also in Claimant's Exhibit, Defendant's Reamer Type 'D,' there are portions of the body extending down between the cutters and against which, portions of the body, the cutters bear; whereas, in Claimant's Exhibit, Defendant's Reamer Type 'C,' such portions are not apparent and do not appear to be present. What have you to say as to these differences with respect to cutter breakages, or otherwise?"

Mr. Lyon: Objected to as incompetent, no foundation being laid, and the witness appearing from his own testimony and statement that he has not used Com-

plainant's Exhibit, Reamer Type 'C' sufficiently to enable him to have the necessary experience therewith to answer the question, or upon which to found any opinion of value in this case.

A. You want my opinion.

Mr. Blakeslee: Whatever you have to say. [362]

A. The absence of that portion, or dovetail as we call it, would have a tendency to weaken the cutters.

Q. 212. And that would result in what?

A. In breaking the cutters, for the reason that you have no bearing in the cutters, like you have here.

Q. 213. That is, no bearing in Complainant's Exhibit, Defendant's Reamer, Type 'C.'

A. Yes, sir.

(Witness refers in his last answer to the shoulders on the body between the cutters in Type 'D' and Type 'E.')

Q. 214. And the absence of those shoulders in Type 'C' produces what effect?"

The witness in continuing testifies that he prefers the reamer with the broader cutters from the six-inch size down. He apparently inadvertently refers to the Type "C" in that connection, meaning either "D" or "E" as question 216 shows, and then states that he gets better results with the broader cutter, and the broader cutter has more material to dress out. These of course are particular features of the Wilson invention and Types "D," "E" and "F" and the "Improved," of appellant.

The witness then testifies that when a Double cutter is broken it is left in the hole and has to be "side-tracked" or fished out, causing quite a little trouble;

that sometimes you can get by it, but it causes a good deal of trouble to get broken cutters or any iron loose in the hole; that they try to fish them out and if that cannot be done they drill them out, either pounding the drill on them until they are broken up or pounded off onto the side of the well and are sucked up by the sand pump. Occasionally they are fished out.

This deposition likewise shows how the appellee's or complainant's reamer and the features of complainant's patent in defendant's or appellant's reamers superseded in important use and service the old patented Double reamer. It bears out our contention that the only serviceable and satisfactory underreamer at the present time is either the Wilson reamer or the "Wilsonized" Double reamer. In this connection there must be borne in mind the findings of the court in *Union Tool Company, et al. v. Wilson & Willard Manufacturing Company*, 237 Fed. *supra*, that the Double reamer and the Wilson reamer have practically so superseded prior types of underreamers.

We must bear in mind that the defendant's or Double reamer in assisting in so superseding prior reamer types has done so with the aid of the Wilson invention; in other words, it has been a "Wilsonized" Double underreamer which with the Wilson reamer so superseded prior underreamers. This must of necessity be read into the opinion in Union Tool Co. et al. v. Wilson & Willard Manufacturing Company, supra, because of the proofs in the case at bar, and amounts in effect to a substantiation of our contention that it is the Wilson underreamer or Wilson invention in underreamers which has crowded prior underreamers from the field

by its superiority, and by its proven title as the reamer that took the last step in the art. *Manifestly the Wilson invention of the patent in suit took the last step in the art within the meaning of the Barbed Wire Patent case*, 143 U. S.

The extensive adoption of the Wilson invention, and its necessary adoption by defendant in order that it retain its business even at the expense of piracy, and the value of the very features which defendant adopted, even without the further feature of collapsion of the cutters between the prongs, established the subject of the Wilson patent as a true invention, and a product of high ingenuity and inventive skill. The utility is apparent and was immediately recognized by the trade and users, and novelty will be apparent when the scant semipertinent prior art is dealt with.

It is not necessary to cite to Your Honors in *extenso* the authorities of this question of invention. There has been no attack made in this case on that branch of the issue, but the decision of this Honorable Court in *Bliss, et al. v. Spangler*, 217 Fed. 394, citing *Loom Co. v. Higgins*, 105 U. S. 580, and the *Barbed Wire Patent case*, 143 U. S. 275, *supra*, are worthy of passing notice, as is *Nicholas Power Co. v. C. R. Baird Co.*, 222 Fed. 933, to the effect that:

“Unusual commercial success of a patented article is entitled to great weight on the question of invention, when it is otherwise in doubt, as business ability, finely constructed machine parts, and good selling organization, cannot accomplish such a result without a basically satisfactory product, and especially is this true where other noted in-

ventors have patented articles for the same purpose which were unsuccessful.”

Also this Honorable Court has said in *Stebler v. Riverside Heights Orange Growers' Association et al.*, 205 Fed. 735, *supra*:

“On the question of anticipation, the fact that the patented device is so different from those of the prior art that it has superseded them in general use is entitled to great weight.”

The invention of Wilson was *admitted, conceded*, and highly *acclaimed*, by the general well drilling public and trade and industry, and by the infringing defendant, who found its business being swept away from it by the product of Wilson's inventive ingenuity, and turned to piracy rather than to negotiation for a license.

Defendants' Peculiar Defense Tactics.

We have in this record the deposition of one Thomas J. Griffin, commencing at record 664, to whose testimony and the testimony of the complainant commencing at record 905, in rebuttal, we call Your Honors' particular attention, inasmuch as it reflects the tactics of the defendant in this case in attempting to meet a square and open issue of infringement with underhanded and devious procedure. Griffin was closely interested with the defendant and Double in various interests and was a complainant, as the record shows, against Wilson in other litigation. We quote the testimony of Mr. Wilson [R. pp. 905-919, inclusive] as follows:

“Deposition of Elihu C. Wilson, for complainant. (Recalled in rebuttal).

Elihu C. Wilson, the complainant, having previously testified in this case on his own behalf, being resworn by the notary present, testified further, in rebuttal, as follows, in answer to questions put by Mr. Blakeslee:

Q. 274. You have testified previously in this case, Mr. Wilson?

A. I have.

Q. 275. Were you present when the deposition of Thomas J. Griffin was taken on behalf of defendant in this case?

A. I was.

Q. 276. Did you hear the entire deposition as given by him? [759]

A. Yes, sir.

Q. 277. Please state whether or not you were present at a certain conference held on the 18th of June, 1915, at room 440, Douglas Building, Los Angeles, California; and, if so, who were present at that conference?

A. There were present at that conference Thomas J. Griffin, F. A. Stephenson, W. W. Wilson and myself.

Q. 278. Please state whether or not, at that time and place with the same parties present, said Thomas J. Griffin made the following statement, to-wit: ‘I am very frank to say that for all-round purposes the Wilson reamer is better than the Double’?

Mr. Lyon: Objected to as leading, incompetent, not the proper method of proof of conversation, and as irrelevant, incompetent and not rebuttal.

Mr. Blakeslee: Attention is called to the fact that this is a proceeding on impeachment, as to this question, and is predicated upon the record of the defendant in this case.

A. Yes, sir; he made that statement.

Mr. Lyon: Defendant moves to strike the answer from the record and exclude it from consideration, upon the grounds and each of the grounds stated in the objection to the question.

Q. 279. (By Mr. Blakeslee.) In said deposition of Thomas J. Griffin the following question was asked of him: 'XQ. 446. At that same conference did you not state and did you not make the offer that for a certain sum of money you would sell certain rights, which you had, or claimed to have, to Mr. E. C. Wilson, the complainant in this case, and certain evidence which you claimed to have to support such alleged rights, and that then, if you were wanted by the defendant in this case, or Mr. Double, in order that you might testify, you could arrange to be out of the jurisdiction of this court?' What have you to say as to any [760] such occurrence?

Mr. Lyon: The same objections as noted to the preceding question.

A. That proposition is the one he put up to us, exactly. He had certain patents, he said, and patent rights, which he wished to sell and he said he had evidence in support of same which would be an absolute defense against any suit which Double could bring or had brought against us for alleged infringements of the Double underreamer patents, and stated, furthermore, that he would never testify for Mr. Double

in these underreamer cases again, that he was absolutely done with the bunch, and sick and tired of it, and that he would not under any circumstances whatever testify for Mr. Lyon in these underreamer cases again. He made particular mention of the fact that he was absolutely done with Mr. Lyon. And then he stated, furthermore, that if it would be to our interests, he would leave this jurisdiction altogether, as he wanted to go to Canada.

Mr. Lyon: We move to strike the answer, and each part and parcel thereof, from the record and exclude it from consideration, on each of the grounds stated in the objection to the question, and as the conclusion of the witness and not a statement of the conversation.

Q. 280. (By Mr. Blakeslee.) Said Thomas J. Griffin was also, in his cross-examination, asked the following question: 'XQ. 447. Did you not, at that conference, state and offer that for this same consideration, and included in your general offer, you could and would turn over to Mr. E. C. Wilson, there present, certain evidence which would prevent and preclude the Union Tool Company, the defendant herein, and its president, Edward Double, and their associates, and parties jointly interested with them, from winning any suit at present pending between these last mentioned parties and interests and Elihu C. Wilson, the complainant [761] herein, and the Wilson & Willard Manufacturing Company and their allied interests?' What have you to say as to these matters?

Mr. Lyon: Same objections as noted to the preceding question.

A. Yes, sir. I have just mentioned the fact that he stated that he had evidence, in Texas and elsewhere, which, if we desired—would pay the price that he asked—he could supply us with, and which would be an absolute defense against any suits which Mr. Double might have against us in the underreamer business. He stated that these inventions were clearly anticipated by reamers which he had used, and which reamers we could use as an absolute defense against Mr. Double. He said these reamers were available; he knew where to get them; they were in Texas somewhere, and he gave us the names of the men who had manufactured them and he gave us the names of certain shops wherein these reamers were supposed to have been made, and the names and the firms checked up with reports we have since received from Bradstreet's and Dun's indicating that such firms existed at that time and that such men were associated with those firms.

Mr. Lyon: We move to strike the answer, and each part and parcel thereof, from the record, upon each of the grounds stated in the objection to the question, and upon the further ground that the same, and parts thereof, are not responsive to the question, and are incompetent, not the best evidence, and that the same is not impeachment, not material matter.

Mr. Blakeslee: It will be understood that while we have referred to procedure on impeachment, with respect to a certain question asked of this witness this morning, it is not to be inferred that this procedure is limited in its purpose solely to impeachment, but its manifest purpose and bearing will be understood, in-

cluding its direct bearing upon the qualification of the [762] witness Thomas J. Griffin to testify as an expert on behalf of the defendant in this case, and its tendency to establish bias of said Thomas J. Griffin.

Q. 281. (By Mr. Blakeslee.) The following question was likewise asked of said Thomas J. Griffin in his cross-examination: 'XQ. 450. Did you not, at that same conference and at the same time and place and in the presence of the same parties, further state that you were sick and tired of the Double and Union Tool Company bunch, using an oath in describing them, and wanted to get away from them, and get what you could out of E. C. Wilson, the complainant herein, for what evidence, information and patent rights you could bring to said E. C. Wilson?' What have you to say as to these matters?

Mr. Lyon: Same objections as noted to the preceding question and answer.

A. Yes, sir; he made that statement to us. He contended he hadn't had fair treatment at the hands of the Union Tool Company 'bunch,' as he expressed it, and that he was sick and tired of their treatment; that they had refused to pay him royalties which were coming to him and he had about \$2500 due him then which they had refused to pay, and that he was altogether very much dissatisfied with their treatment and that he wanted to get out and get entirely free of them and get away from here altogether, and that he was willing to sell out what information and what interests he had and sell them to us and get what he could for them.

Mr. Lyon: Move to strike the answer from the

record and exclude it from consideration, and each part and parcel thereof, upon each of the grounds stated in the objection.

Q. 282. (By Mr. Blakeslee.) Said Thomas J. Griffin was also asked the following question in cross-examination: 'XQ. 453. Did you not, at that same interview, at the same time and place and in the presence of the same parties, state that you could [763] produce for said E. C. Wilson evidence that would prove that the said R. E. Bole, patentee of Defendant's Exhibit Bole Patent, perjured himself in giving his testimony in said Interference No. 37,126, and in his testimony before this same court in the suit now on trial, pending between said R. E. Bole and said Edward Double, on the one hand, and said E. C. Wilson and the Wilson & Willard Manufacturing Company, defendants, in that a certain exhibit, in evidence in both these cases, being a certain tracing purporting to show a key, with alleged witnesses' signatures thereon, and further matter, was not a genuine document, but that the alleged signatures thereon of one Fahnestock and one Grigsby were in fact forged upon said tracing—were, in fact, traced upon such tracing linen, and not traced thereupon by said parties?' What have you to say as to these matters?

Mr. Lyon: Objected to upon each of the grounds stated in the objection to the preceding question, and particularly as leading, and, if for the purpose of impeachment, upon a matter totally foreign and immaterial to any of the issues in this case.

Mr. Blakeslee: Attention is called to the fact that the record in this case, of the defendant's shows an

attempt to read into one of the infringing structures certain matter patented by said Defendant's Exhibit Bole Patent referred to in the question.

Mr. Lyon: The mere fact that the defendant may be using the invention patented in and by said Bole patent does not place said Bole patent in issue in this case, as shown by the exhibits in this case, to-wit, the records of this court in suit, No. B-19, in equity. This court has adjudicated the validity of said Bole patent in a suit in which this court had personal jurisdiction of the parties thereto, and which adjudication cannot be collaterally attacked in this proceeding, the only purpose of said Bole patent in evidence being to show that, so far as the invention therein described and patented is concerned, the use thereof by [764] this defendant has not been an appropriation of anything that was in the original Wilson patent, but a subsequent invention.

Mr. Blakeslee: We were quite responsively assuming that the defendant would in this matter attempt to show that it was acting within alleged rights in the use of this key; and the testimony under consideration pertains to the validity of such rights, and what that validity or invalidity might have been found to be had the alleged evidence purported to be within the control of the witness Griffin been placed before the court when such question or validity was passed upon.

Mr. Lyon: The objection is renewed, as the validity of such Bole patent is not in issue in this case.

A. Yes, sir; he made that statement to us. He said Bole had lied about it; that he had told him that

he, himself, Bole, had traced those signatures on that drawing.

Mr. Lyon: Move to strike the answer from the record, and each part and parcel thereof, on the grounds stated in the objection, and on the further ground that it is not responsive, and not the proper method of impeachment.

Q. 283. (By Mr. Blakeslee.) I call your attention to the following testimony given by said witness Thomas J. Griffin in the said cross-examination: 'XQ. 457. Now, as a matter of fact, did you not design or were you not responsible for the design of Complainant's Exhibit Type "F" reamer, Defendant's Exhibit in this case? A. I have previously testified fully on that matter already. I refer you to such answer, as I have no further answer to make on it. XQ. 458. Is it not a fact that you so stated at the conference on June 18th, as to which I have previously questioned you, at the same time and at the same place and in the presence of the same parties? A. I fully testified on this matter, and refer you to my previous answer. There is nothing to elaborate thereon. XQ. 459. Did you not, at that conference [765] and at that time and place and in the presence of those parties, say that you invented that Type F reamer? A. The same answer.' What have you to say as to these matters?

Mr. Lyon: Objected to upon each of the grounds stated in the objection to the preceding question and set forth in the motion to strike the answer from the record and exclude the same from consideration.

A. I don't remember definitely whether he said that or not. I do remember, however, that he stated

that he himself was the inventor of the reversible slips for rotary drive, a patent for which had just at that time been issued to Mr. Edward Double and applied for by Double personally, Double representing himself to be the sole inventor.

Mr. Lyon: We move to strike the answer, and each part and parcel thereof, from the record, on each of the grounds stated in the objection thereto, and upon the ground that the same is not responsive to the question, and immaterial to the issues in this case.

Q. 284. (By Mr. Blakeslee.) And what Edward Double did he refer to at that time?

Mr. Lyon: Same objection.

A. The party to this suit; the president of the Union Tool Company.

Q. 285. (By Mr. Blakeslee.) I call your attention to the following testimony given by said Thomas J. Griffin in said cross-examination: 'XQ. 460. At that same conference, and at that same time and place and in the presence of the same parties, did you not state that it was your belief that Dick Smith, the foreman of the Union Tool Company, invented the Double underreamer known as the "Double Improved Underreamer," being substantially Complainant's Double Improved underreamer and cutters?' What have *you say* as to these matters? [766]

Mr. Lyon: The same objection, and each thereof, as noted to the preceding question. The further objection that it is immaterial what the belief of the said witness Thomas J. Griffin was.

A. Yes, sir; he made that statement at that conference.

Q. 286. (By Mr. Blakeslee.) I call your attention to the following testimony in said cross-examination of said Thomas J. Griffin: 'XQ. 462. Did you not, at that same conference, and at the same time and place and in the presence of the same parties, say that to the best of your knowledge Edward Double, the president of the Union Tool Company, the defendant herein and the alleged inventor of Defendant's Exhibit Double Patents Nos. 1, 2 and 3, had never invened anything?' What have you to say as to these matters?

Mr. Lyon: Same objection as noted to the preceding questions.

A. Yes, sir; he made that statement, and stated that in his opinion Double didn't have the mechanical ability to make an invention of that sort, and cited, as an instance of Double's inability to grasp the mechanical action, a pump which was being manufactured at the Double shop or Union Tool Company shop, manufactured as an invention—represented to be an invention—of Double's and which pump had been giving him, Mr. Griffin, trouble in the field. Mr. Griffin was operating the pump, Mr. Double didn't understand the mechanical action of that pump, although he pretended to be its inventor.

Mr. Lyon: We move to strike the answer, and each part and parcel thereof, from the record, upon each of the grounds stated in the objection.

Q. 287. (By Mr. Blakeslee.) Who proposed this conference that we are discussing now?

Mr. Lyon: Objected to as leading, and as calling

for [767] the conclusion of the witness and not for a statement of fact.

Q. 288. (By Mr. Blakeslee—Continuing.) Add to the question: 'if you know.'

A. The conference was the outgrowth of a communication from Mr. Griffin wherein he stated he wanted to see us or have a talk with us about these patent affairs. He took the matter up with Mr. W. W. Wilson first.

Mr. Lyon: We move to strike the answer from the record, and each part thereof, on the grounds stated in the objection, and upon the further ground that it is hearsay, incompetent, not the best evidence. It appears from the answer of the witness that he has no personal knowledge.

A. (Continuing.) I might add that he was in conference with me and negotiated with me in regard to these matters before this conference, and that this conference was the outcome of the propositions which he had been submitting, and we had this conference for the purpose of ascertaining what he had to offer.

Mr. Lyon: Same motion and objections.

Q. 289. (By Mr. Blakeslee.) I call your attention to the following question asked of said Thomas J. Griffin on said cross-examination: 'XQ. 466. At that same conference, and at the same time and place and in the presence of the same parties, did you not offer to furnish proof, as part of your offer, in consideration of the said sum of \$10,000, which you requested said E. C. Wilson to pay you, that with respect to the matter of this Defendant's Exhibit Bole Patent testimony given by the witness Heber and testimony given by the

witness Adams was false, in that the said Robert E. Bole made sketches of the key involved in the controversy concerning said Bole patent for both said Heber and said Adams immediately before they testified in said inference No. 37,126, and that said sketches were so made for said Heber and Adams by said Bole in the presence of defendant's counsel in this [768] case and in your own presence?' What have you to say in regard to these matters?

Mr. Lyon: The question is objected to as leading, as not the proper method of proof of conversation, and, if for the purpose of impeachment, not the proper method of impeachment and as to an immaterial matter having nothing to do with the issues in this suit.

A. Yes, sir; he so stated.

Mr. Lyon: Move to strike the answer from the record and exclude it from consideration, upon each of the grounds stated in the objection to the question. And it will be understood that each of these motions to strike out and exclude from consideration are submitted at the final hearing of this cause upon the submission of the cause without the necessity of any further notice or motion. This applies to all motions of similar character heretofore made or hereafter made in this case on behalf of defendant.

Mr. Blakeslee: It is understood, likewise, on behalf of complainant, that the objections noted of record are to be understood as being made, without the necessity of repetition, before the submission of the case, and without further notice, to be ruled upon by the court upon such submission, either as extant in the record

or as elected to be urged by counsel for the complainant.

Q. 290. Reference has been had in your testimony this morning to a certain interference, No. 37,126, pending between yourself and Robert E. Bole, concerning the original patent of Defendant's Exhibit Bole Patent, offered in this suit. To your knowledge, has there been any adjudication on the matter of said interference in the patent office?

Mr. Lyon: That is objected to as immaterial and irrelevant to the issues in this case, and as an attempt to impeach collaterally the judgment and decree of this court, and as incompetent, not the best evidence, not the proper method of proof.

A. Yes, sir; there has been. [769]

Q. 291. (By Mr. Blakeslee.) How many such decisions, if more than one?

Mr. Lyon: Same objection.

A. Two decisions.

Q. 292. (By Mr. Blakeslee.) And in whose favor have both or either of such decisions been, as between yourself and said Robert E. Bole?

Mr. Lyon: Same objections.

A. Both decisions were in my favor.

Q. 293. (By Mr. Blakeslee.) And both decisions found you to be the true, original, sole and prior inventor of the exhibit of said Bole patent?

Mr. Lyon: Same objections, and as leading.

A. They did."

THAT EITHER THIS WITNESS, UPON WHOM DEFENDANT APPARENTLY PLACED GREAT RELIANCE IN QUASI-EXPERT TESTIMONY (AND TESTIMONY WHICH SHOWS SELF-IMPEACHMENT OF THIS WITNESS AND SELF-CONTRADICTION AND CONFUSION WHICH WOULD BE LUDICROUS WERE IT NOT EITHER PITIABLE OR DESPICABLE)—*either this witness brought about this conference with complainant and his general counsel and others as a traitor to the defendant's camp, or as a spy on their behalf, is evident from this testimony. If we believe what Griffin said at that conference, we certainly cannot believe his testimony, and we must believe that the defendant interest with its Double and Bole and like tentacles, has been playing true to form in its infringement found in this case and in the pitiable, if not contemptible defense and defendant's tactics presented and displayed in certain respects in this case. In this testimony we get another angle of the Bole patent controversy which Your Honors effectively brought to an end in Wilson et al. v. Bole and Double, 227 Fed. 607.*

Ordinary Plain. Straight Infringement Is Piracy, but It Is Not Every Patent Pirate Today That Lives up to All the Traditions of Old-Time High-Sea Piracy. We Find the Stage-Setting of Such Complete in This Case and the Related Bole Case.

THE WILSON INVENTION, WHOLLY NOVEL IN PARTS, FEATURES AND COMBINATIONS THEREOF.—THE PRIOR ART.

When we come down to a consideration of the meager prior art or any part thereof pertinent to the

Wilson invention, the opinion of the honorable trial judge will be found thoroughly correct as to any alleged anticipating patents and devices affecting the patent in suit here and preceding the Double invention of the patent in suit in *Union Tool Co. v. Wilson & Willard Manufacturing Company*, *supra*, being Defendant's Exhibit Double Patent No. 1. This patent was issued in 1903. The same is true as to those succeeding Double and preceding Wilson. We quote from the opinion of the court in these respects:

"In pleading anticipation, the defendant in these two causes has, insofar as a number of the alleged anticipating patents and devices set up are concerned, necessarily taken a position inconsistent with its contention in cause #1540. This, of course, is permissible, but the court having already held in the decision this day filed in 1540 that Wilson's device infringed the Double patent and that the Double patent was not anticipated by the prior patents mentioned, it follows that, in so far as the alleged anticipating patents and devices preceded the Double invention in point of time, necessarily, none of them anticipated the Wilson invention. In so far as the patents issued and the devices designed and used prior to the Wilson application for patent and not shown to be prior to the Double invention are concerned, no anticipation is found."

The *other* defenses as to novelty have been thoroughly disposed of in cross-examination by complainant of defendant's witnesses, Griffin and Knight, and really need but slight review here. As the opinion of the honorable trial judge indicates, the principal de-

fense as to anticipation outside of the Double invention was apparently the so-called Jones removable bowl reamer. We quote from the opinion of the court as to this device:

“The so-called ‘Jones Removable Bowl’ reamer, defendant also contends, is an anticipation of the patent in suit. *Only a very few machines of this design were made.* These machines were manufactured and sold after the time of patenting Double’s device and more than two years before the application of Wilson for the patent in suit.

In the Jones removable bowl reamer, the extension is forked to form bearings, but the enclosing bowl, which takes the place of the enclosing recesses or pockets of the Double and Wilson—in which the cutter-shanks are seated—is unbroken by any slotting, as occurs in the Double and Wilson to allow the shoulders on the same to contact with the foot of the casing to cause the collapse of the cutters.

This removable bowl reamer anticipated the forking of the lower extension of the patent in suit in so far as permitting the rod integral with the head or tee thereon—which carries the cutters—to be inserted from the bottom is concerned. These forks in the removable bowl reamer also form ways for the cutters; but the forks in this reamer were not joined at the bottom in any way. The shanks of the cutters bore at all times against the prongs and did not collapse between them. The bearing at the end of the prongs afforded the inner face of the cutter-head in the removable bowl reamer does not anticipate the bearing afforded by the ‘lug’ face of the patent in suit, for, in the removable

[66] bowl reamer, the bearing afforded is considerably less across than the diameter of the extension of the reamer body, or bowl.”

This device, as the record shows, in the meager testimony of the Jones witnesses, was only an ephemeral or sporadic attempt to do something which never “arrived.” It and the O’Donnell and Willard reamer relied upon “bowls” to hold the cutters in place, as without such bowls the cutters would fall out. The outthrust was taken by these “bowls” instead of by ways 3 on the body end or prongs. The combination of parts is not the same, and there is no similar co-action of parts and features. Neither complainant nor defendant has any such “bowl.” Only a very few were made and the device was entirely superseded by the earlier Double reamers. Furthermore, within the doctrine of *Stebler v. Riverside Heights etc. Co.*, 205 Fed., *supra*, it would require complete reorganization, modification and reconstruction of this device to make it over into a Wilson underreamer, or even into an infringing underreamer of the defendant. The action was entirely dissimilar, and the construction entirely dissimilar. Neither this Jones reamer nor the O’Donnell and Willard reamer has shouldered “prongs” with ways and cutters with shoulders on the ways. A bowl or unslotted continuous-wall mouth was depended upon to confine and co-act with the cutters to produce and control the expansion and collapsion of the cutters, and such principle and construction is the direct antithesis of the open mouthed formation of the spaced pronged Wilson reamers of the Wilson patent and of

the hollow slotted and open-sided formation of the Double reamers, or infringing reamers, or the pronged and open-sided Type "F" infringing reamers. This Jones reamer has no lugs 2' sharply demarked from the ways 3 to produce upthrust shoulders 10' above them. While this reamer permitted the rod and integral head or tee to be inserted at the lower end of the body, it will be found that the spring could not be so inserted, and that there is a "sub" or middle joint or screw cap on the upper end of the body which is provided for assembling the rod and spring and body and cutters, and for setting up the nut to adjust the compression of the spring. The reamer *could not* be disassembled without lifting off the "sub" or intake joint, as they rest on the rod above the spring, which must first be removed to free the rod from the spring. The rod or stem had to be put in from below and the spring from above after removing the cap or joint. This reamer could not be assembled and adjusted without the use of such middle joint, which is the antithesis of the teaching of the Wilson patent in these respects, and the antithesis of the following of that teaching as reflected in the defendant's infringing Type "F" reamer. While there are spaced ways for the cutters in this Jones removable bowl reamer, they are not the ways 3 of complainant's patent or reamer or of defendant's infringing reamers, for as set forth, for instance, in claim 9 of the patent in suit, the Wilson invention requires that there be shoulders on the inner faces of the prongs to form cutter-ways, and that the cutters be mounted between the "prongs" and have shoulders inside the fork or between the prongs in the

ways. *The cutters in the Jones removable bowl reamer merely rest upon the spaced ways and are not confined against outthrust by any ways, and the little stops at the tops of such ways and at the outer portions thereof are in no sense shoulders on the inner faces of the prongs, and do not co-act with any shoulders whatsoever on the cutters, nor particularly with any shoulders so co-operating therewith as to permit the cutters to be mounted between the prongs of a fork and held there against outthrust.* On one particular side of the Wilson invention, this Jones reamer is of course utterly lacking in suggestion, namely, on the side pertinent to collapsion of the cutters between the prongs. As the trial court says, the spaced ways of this Jones device are devoid of the "lug" elements of the patent in suit, important elements of claim 9 of the patent found infringed, namely, the lugs 2' of the patent in suit. We shall see that this element was entirely and radically novel with Wilson, and appropriated *in toto* by defendant, who did not get his teaching from the prior art in such respect, for the prior art was silent thereupon. *The spaced ways of the Jones removable bowl reamer do not terminate in any definitely organized, formed and arranged portions whatsoever, bearing any similitude in form or function to the "lug" elements of the patent in suit.* So we have not in this Jones reamer an anticipation of the Wilson invention in any one of the three aspects in which "prongs" may be considered, as above marshalled, either to permit collapsion of the cutters between the prongs, or to permit complete assembling of the reaming features at the bottom of the reamer body, or to serve as body por-

tions or extensions for carrying the “lug” elements or element and the ways. And of course we do not have anticipation in any respect of the combinations of the claims 9 and 19 found infringed, for the mode of operation as well as the construction is clearly, as above pointed out, entirely dissimilar. The shoulders forming the ways 3 for the cutters in the Wilson patent and in the infringing reamers prevent outward displacement of the cutters and take the outthrust. No such shoulder action is possible in this Jones removable bowl reamer, the bowl mouth being relied upon in such respect, and such bowl mouth producing an entirely different operation of the cutters in collapsing and expanding, namely, different from the operation found in the Wilson and infringing reamers; because, as the trial court says, such bowl mouth is unbroken by any slotting to allow the shoulders on the cutter shanks to contact with the shoe or the casing to cause the collapse of the cutters. *Take the bowl mouth away from the Jones reamer and the reamer would be inoperative. No such bowl mouth is found in the Wilson patent, nor is it found in the infringing reamers. The Jones reamer is thus essentially different, and cannot be given any anticipatory consideration in this case, as the trial court found. It was a mere abandoned experiment.* Many further authorities might be quoted from, and cited, as to the non-pertinence of the alleged anticipatory structures and patents set up by defendant. Such authorities, including *Topliff v. Topliff*, 145 U. S.: *Yesbera v. Hardesty*, 166 Fed. 120, 125, *supra*, and others, too well establish the rule that piecemeal anticipation, or anticipation requiring reorganization, are

to be given serious consideration in weighing novelty. See also *Gormley v. Jeffrey Mfg. Co. v. Stanley Cycle Mfg. Co. et al.*, 90 Fed. 280, in which it was said:

“Of course the claim cannot be defeated by showing that each of its elements, separately considered, was old. The defendants must prove that the combination was old. If they fail in this, they fail irretrievably.”

And see the decisions of this Honorable Court in *Parker v. Stebler et al.*, 177 Fed., and *Los Alamitos Sugar Co. et al. v. Carroll*, 173 Fed. 280.

And Wilson produced NEW elements, such as the lugs 2'. The record shows [Qs. 340, 341, p. 949] that Wilson never heard of this Jones “bowl” reamer until just before he testified in this case. So he was an original inventor as to anything possibly pertinent in this prior device.

Passing to the other defenses in attack on novelty, the court has found in the opinion that the O'Donnell and Willard patent No. 762,435 was not anticipatory either of the invention here nor of the Double invention. Clearly this patent shows no “prongs” in either of the three cases hereinabove mentioned as embodying the Wilson invention, for there are no such “prongs” between which cutters can collapse, there are no such “prongs” as permit assembling at the open bottom of a reamer, and there are no such prongs carrying lug elements or ways with which shoulders on cutters contact. Likewise, there are of course no cutter ways 3 nor cutters mounted between prongs and having shoulders 4² inside the fork of the prongs in the ways, which

shoulders co-operate with such cutter ways, as called for by claim 9 more specifically. This O'Donnell and Willard device has a *hollow slotted extension* of the patented Double reamer type, and the cutters have each an enlargement at its lower end for engaging with the shoe of the casing to produce collapsion of the cutters. This reamer could of course not be remachined from the bottom any more than it could be assembled from the bottom, the teaching being that the whole lower end of the body has to be unscrewed to take the reamer apart, and this is as objectionable as the requirement to unscrew a "sub" or middle joint or screw cap at the top of the body. No suggestion of the Wilson invention is found here. There is no body extension with lugs 2' of the Wilson patent, and no cutter with lateral shoulders having bearings 4³ to co-operate with any such lugs.

We quote here the testimony of W. W. Wilson:

Redirect Examination

"By Mr. Blakeslee:

Q. 119. In the cutters of this purported O'Donnell and Willard patent No. 762,435, how many shoulders do you find on the cutters at the lower ends of the cutters?

A. There is one large semi-circular shoulder extending around the outside of the cutter.

Q. 120. What is the purpose of that shoulder as you make it out from the disclosure of this patent?

A. To take the up-thrust of the cutter by being in contact with the underreamer body.

Q. 121. Please compare the general shape or out-

line of the shank of each of these cutters with the shank of the cutters of Complainant's Exhibit "Wilson Patent," taking a view of the inner face of the same.

A. The inner face of the Wilson cutter shank is a rectangular piece, while the inner face of the cutters shown in the patent No. 762,435 has parallel top and bottom edges and upwardly and inwardly inclined lateral edges.

Q. 122. Now, projecting the lateral edges of one of these cutters downwardly toward the cutting edge of the cutter, [258] please state where the termini of such projected sides will fall with relation to the cutting edge.

A. It will fall very naerly on the same.

Q. 123. Do you, therefore, find upon the body or lower end of one of these cutters any enlargement which produces a wider cutting edge than would be provided by a projection of the side lines of the shank of the cutter as last inquired about?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 124. (By Mr. Blakeslee): If the side lines of the shanks of the cutters of Complainant's Exhibit "Wilson Patent" are projected downwardly to the cutting edge of the cutter, where will such side lines fall with respect to the lateral extremities of the cutting edge?

A. Some distance within the lateral edges of the cutting edge.

Q. 125. And outside of such extended side lines of the shanks what will be found to exist or be present in the cutters of the Wilson patent?

A. The shoulders or lateral extensions shown at point 16, together with the inner bearing-faces on each side shown at 4³, together with the cutting edge of the cutter below these points.

Q. 126. And will any cutting edge be found to remain outside of the side lines of the shanks of a cutter of the O'Donnell and Willard patent if such side lines are extended downwardly to a zone of the cutting edge?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 127. (By Mr. Blakeslee): Now, if a cutter of complainant's "Improved Double Reamer and Cutters," what is the general shape of the shank of the cutter, viewed from its inner face? [259]

A. Rectangular.

Q. 128. And if the side lines of the shank be extended downwardly to the zone of the cutting edge, what, if anything, is found to be present in the cutter outside of these side lines?

A. Lateral extensions of the cutter-expanding bearing-face, a considerable portion of the cutter body and a considerable portion of the cutting edge of the cutters.

Q. 129. What have you to say as to the width of such portions of the cutter lying outside of such extended side shank line, tracing such portion from its top to its bottom.

A. Fully 2/5 of the entire cutting edge of the cutter lies without these lines.

Q. 130. How as to the maintenance of the width in such outside cutter portion?

A. These outside cutter portions extend the width of the cutter.

Q. 131. And how as to the maintenance of width across these portions of the cutter, comparing any one transverse area with another?

A. It would give about $\frac{2}{5}$ increased area for an increase of width of $\frac{2}{3}$ of the original cutting width.

Q. 132. Comparing these lateral outside cutter portions at the top of the body of the cutter with these lateral outside portions at the bottom of the body of the cutter, what have you to say with respect to the relative width?

A. The relative width is increased the same at the bottom as at the top of the cutter body.

Q. 133. Now, how with respect to the cutter of the O'Donnell and Willard patent in this connection? That is, what do you find in this connection in the O'Donnell and Willard cutter?

A. The increased cutter width at the top of the cutter body has produced no increased width in the cutting edge thereof. [260]

Q. 134. Then please compare the results obtained or effects produced by the provision of the single up-thrust shoulder running around the outer surface of the cutter of the O'Donnell and Willard patent at the top of the body thereof, with the two shoulders upon a cutter of Complainant's Exhibit "Wilson Patent" and the two shoulders upon a cutter of Complainant's Exhibit "Improved Double Reamer and Cutters," with

respect to the dimensions or width of the cutting edge of the cutter.

A. The single shoulder on the cutter of the O'Donnell and Willard patent produces no increased width of cutting edge, while the two shoulders on the cutter of the Wilson patent produces an increased cutting edge equal to their combined width. The same also applies to the cutter of the Double improved under-reamer and cutters as shown in Complainant's Exhibit "Improved Double Reamer and Cutters."

Q. 135. What *so* you make out with respect to the width of the single shoulder or up-thrust bearing the cutter of the O'Donnell and Willard patent, considering it from one end throughout its curved extension to the other end?

A. Its width is very small as compared to its length.

Q. 136. Please compare the width of this single shoulder at its ends with its width at the portions of it between its ends.

A. The width is the same throughout its circumferences.

Q. 137. Compare this curved continuous shoulder of the O'Donnell and Willard patent cutter with the shoulders or lateral extensions of the cutter of Complainant's Exhibit "Wilson Patent" and the cutter of Complainant's Exhibit "Improved Double Reamer and Cutters," particularly with respect to the backs or outer faces of the three cutters.

A. The bearing face on the O'Donnell and Willard cutter causes a jog or shoulder on the back of the O'Donnell and Willard cutter. The shoulders on the

Wilson underreamer-cutters and the [261] improved Double reamer and cutters do not form any such shoulder in the backs of the cutters.

Q. 138. What do you make out from the O'Donnell and Willard patent to be the office of this continuous curved rib or shoulder upon the top of the cutter body?

A. It is for the purpose of taking the up-thrust of the cutter.

Q. 139. Do you find any reference in the disclosure of this patent to any other office of such rib of enlargement or shoulder?

A. The outer edges of these shoulders 15 and 15' also engage with the shoe 22' to cause collapsion of the cutters when the reamer is withdrawn from the hole.

Q. 140. Do you find in the cutters of Complainant's Exhibit "Wilson Patent" and of Complainant's Exhibit "Improved Double Reamer and Cutters" any parts or features which correspond in their function of office with these shoulders 15 and 15' on the respective cutters of this O'Donnell and Willard patent, and, if so, please designate.

A. The shoulder 30 shown in the figures 7 and 8 and also figures 1 and 3 of the Wilson patent, show a shoulder which contacts with the shoe for the purpose of effecting collapsion of the cutters on withdrawal of the reamer from the hole. The same sort of notch is found on the shank of the cutter shown in Complainant's Exhibit "Improved Double Reamer and Cutters" on the shank at the outside thereof at about the middle portion of the slot in the shank.

Q. 141. Do you make out from any portion or all of the disclosures of the O'Donnell and Willard patent that those shoulders 15 and 15' of the respective cutters were provided for any other purpose than for imparting up-thrust to the bottom of the socket 2 and for co-operating with the shoe to effect contraction of the cutters? A. No, sir. [262]

Q. 142. Do the lateral bearing-faces 4³ at the tops 16 thereof, or at any portions thereof, referring to the cutter of Complainant's Exhibit "Wilson Patent," co-operate in any manner with the shoe or casing or with any part of the casing or any object or thing other than parts of the underreamer in causing collapse of the cutters?

A. No, sir.

Q. 143. Do the lateral bearing-faces on the bodies of the cutters of Complainant's Exhibit "Improved Double Reamer and Cutters" at the tops of such lateral faces or the extensions providing the same, or at any other portions thereof, co-operate in any way with the shoe on the casing or with any object or thing other than parts of the underreamer itself, in producing the collapsing action of the cutters?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 144. (By Mr. Blakeslee): How do you understand the shanks of the cutters of the O'Donnell and Willard patent to be confined in the construction disclosed in that patent?

A. They are confined in the space formed at the lower end of the underreamer body in the socket be-

tween the inner wall thereof and the walls of the partition figure 3.

Q. 145. What sort of a fit is provided between the partition and the inner walls of the socket when the cutters are in expanded position?

A. A reasonably close working fit.

Q. 146. What, if any, effect will that have with respect to any tendency of the cutters to rotate upon a longitudinal axis?

Mr. Lyon: Objected to as leading and suggestive.

A. It is, of course, resisted by contact of the cutter-shank with the space in which it fits. [263]

Q. (By Mr. Blakeslee): Please compare further the shanks of the cutters of this O'Donnell & Willard patent with the cutters of Complainant's Exhibit "Wilson Patent" and of Complainant's Exhibit "Improved Double Reamer and Cutters" with respect to the structural features of the same.

A. The cutter-shanks in the O'Donnell and Willard underreamer patent consist of a plane face on the inside, and on the outside of a curved face, which tapers upwardly and inwardly toward the inside plane face, surmounted at the top by a horizontal plane face and at the bottom joins to the main portion or body of the cutter 12. Near the top of the shank of the cutter is the slot called in the patent the "cross-head socket 14," in which spring-actuated means are operated. Above the outer edge of this socket 14 the cutter-shank is tapered off slightly to permit of collapsing action. In the Wilson underreamer cutter shown in the Wilson patent, the shank consists of a narrow piece of metal

whose sides are parallel planes, whose inside is a single plane. At the line of contact of these planes there are dove-tailed ridges 4-square. On the outside of the cutter-shank is an inclined face surmounted by a more steeply inclined face, 30, surmounted by a vertical face 4' and by a slightly angles face above that. On the inside of the cutter-shank near the top is a pocket 18 for the reception of spring-actuated means. The top of the cutter-shank is a horizontal plane surface with the inside edge beveled slightly.

The shank of the improved Double cutter consists of two parallel lateral faces joined at the back by a substantial vertical face. At the line of contact of these faces are dove-tailed ribs or edges. The inner face of the cutter shank is broken by a notch consisting of two inclined planes. The top of the cutter shank terminates in a downwardly and outwardly inclined plane. The outside of the cutter-shank consists of a cylindrical or curved edge [264] near the top of which is a notch, and at this point there is a slot cut through the cutter-shank for the reception of the spring-actuated means, and through the lower part of this slot is a hole for the placing of a pin to lock the spring-actuated means in place.

Q. 147. Now, irrespective of the one or single curved rib or shoulder or enlargement upon the cutter of the O'Donnell and Willard patent reamer, and irrespective of the lateral extensions upon the cutter of the Complainant's Exhibit "Wilson Patent," and irrespective of the lateral extensions upon the cutter of Complainant's Exhibit "Improved Double Reamer and

Cutters," please compare the action of the shanks of these three cutters with respect to the resistance to the stresses tending to rotate the cutters.

Mr. Lyon: Objected to as assuming a mode of operation and an element or series of elements to be used in co-operation with the cutter not appearing in or material to the issues of this case, which are confined solely to the underreamer cutter as an article of manufacture.

Mr. Blakeslee: Our position in this matter, as heretofore stated, is adhered to.

A. The shank of the O'Donnell and Willard cutter tends to resist the rotation by prying action caused by its irregular or crescent shape acting in a similar shaped pocket in the underreamer body.

The prying actions of the Wilson underreamer cutter shown in the Wilson patent tend to resist rotating action by stress being resisted by the dove-tails 4-square and by a spreading action which would then be produced by the shank of the cutter on the prongs at the lower end of the underreamer body.

The rotating action will be resisted by the cutter-shank of the Double improved underreamer cutter by the dove-tails [265] on one side, and the upper edge of the spreading-bearing on the cutter-shank acting against the hollow-slotted extension.

Q. 148. If the shoulder or rib or continuous bit or shoulder upon the body of the cutter of the O'Donnell and Willard patent were eliminated, please compare the resistance which the cutter would oppose to the rotation of such resistance opposed by the cutter as disclosed in the patent.

A. Very little, *in* any, difference would be made, because the part thus removed would be a very small part of the contacting surface of the cutter and the wedge 3.

Q. 149. What have you further to say in such comparison, taking into consideration the close pocketing of the shank of this cutter between the bowl 2 and the respective face of the partition 3?

A. The closely confined fitting of the cutter-shank would minimize, if not entirely destroy, any tendency of the extended portion to resist rotating movement.

Q. 150. Now, with this single shoulder eliminated from the cutter of the O'Donnell and Willard patent and the shank socketed in the space between the bowl and the partition, that is, with the cutter in expanded position, please state whether or not any rotary action of the cutter would be permitted.

A. No, sir.

Q. 151. Now, please compare this close confinement of the shank of the O'Donnell and Willard cutter with any confinement which you find present or to exist with respect to a cutter of Complainant's Exhibit "Wilson Patent" and Complainant's Exhibit "Improved Double Reamer and Cutters?"

A. The confinement in these cases is not so close as in the O'Donnell and Willard patent, for the reason that with the dovetail construction more play must be given to the cutter in its bearing and in its contact with the reamer body in order to permit free expansion and collapsion of the cutter. Also, it has been [266] shown to be better practice to give the cutters

will not become packed and jammed by sand or cuttings getting in the working surfaces.

Q. 152. Please state what effect, if any, is produced by the provision of the single bit or shoulder 15 or 15' of the O'Donnell and Willard patent with respect to the amount of stock in the body of the cutter at the cutting edge?

A. There is little or no stock added to the body of the cutter at the cutting edge by the increase laterally by the shoulders 15 and 15' in the O'Donnell and Willard reamer.

Q. 153. Now, from your experience in designing and manufacturing oil well tools, please state whether the disclosure of the O'Donnell and Willard patent would enable you or anyone else equally skilled in the art, considering such disclosure as a specification or written instruction, to construct a cutter having a body either like that of Complainant's Exhibit "Wilson Patent" cutter or Complainant's Exhibit "Improved Double Reamer and Cutter" cutter.

Mr. Lyon: Objected to as leading, incompetent, no foundation laid and not the best evidence, and not redirect examination.

A. No, sir.

(By consent of counsel an adjournment is now taken until to-morrow, Thursday, April 23, at 2 o'clock p. m., at this same place.) [267]

Office of Raymond Ives Blakeslee, Esq., Solicitor for
Complainant.

Thursday, April 23, 1914, 2 o'clock p. m.

This being the time to which the further taking of proofs on behalf of complainant was continued, proceedings are now resumed.

Present: Raymond Ives Blakeslee, Esq., solicitor for complainant; Frederick S. Lyon, Esq., solicitor for defendant.

W. W. Wilson recalled.

Redirect Examination

resumed:

Mr. Blakeslee: As counsel has objected to the last question for various reasons, and among them that the question is not redirect examination, and as we have objected to any questioning of this witness with respect to the O'Donnell and Willard patent which has been under discussion, and as that objection was registered against questioning as to this evidence when the witness E. C. Wilson was under examination, and as manifestly this is not a time for defendant to present its defenses or make out its case, we can only assume that counsel is making the present witness his own and is attempting to prove his case in part out of the mouth of this witness produced for complainant. Therefore, still urging the objections heretofore made as against the discussion of this purported O'Donnell and Willard patent during these takings of proofs for complainant, and abiding by such ruling as may be made upon such objection, we will extend the latitude of the examination of the present witness commen-

surate with the assumption that as to this subject of inquiry he is a witness for the defense. It is urged that we may not be denied our right to cross-examine any witness whose testimony is sought with respect to any subject of defense, and, therefore, our further [268] questioning of this witness with respect to this purported O'Donnell and Willard patent will, as stated, be conducted with the broader scope and along the broader lines which would be proper on cross-examination of a witness for the defense, and which we contend under the circumstances are proper with respect to the cross-examination of this present witness on this particular subject. As to any other subjects, the inquiry will be kept within the strict lines of redirect examination.

Mr. Lyon: Counsel for complainant may derive any conclusion that he desires from the argument and statement placed on record by him. This is neither the time or place for an argument of the question involved in his statement. Defendant does not accede thereto, and will at the hearing of this cause meet such contention fully. Notice is given complainant that if the witness is examined further on the subject of the O'Donnell and Willard patent, defendant will insist that it is a waiver of the pretended objection that the subject of the O'Donnell and Willard patent is not cross-examination, and, clearly, if it is not cross-examination it cannot be the subject of redirect examination. The difference between the subject of question 153 asked this witness on redirect examination and on cross-examination of this witness in regard to the subject-

matter of the O'Donnell & Willard patent will become apparent at the hearing of this cause. Defendant disclaims making this witness a witness on behalf of defendant for any purpose whatsoever. The questions asked this witness in regard to the O'Donnell & Willard patent are competent cross-examination for the purpose of testing the ability of this witness as an alleged expert, if for no other purpose.

Mr. Blakeslee: There is a time, of course, and a place, for presenting defenses in suits of this sort, and under the guise of testing the expertness of this witness it is contended that the defendant cannot make his case on his defenses out of [269] the mouth of the witness for the complainant. We understand counsel to imply that we cannot examine this witness either in redirect or in cross-examination as to the subject of this O'Donnell and Willard patent. We cannot adopt this view of the situation, and we propose to examine him in the most advantageous method and leave it to the court to determine the whole question of the propriety of examining this witness at all at this time and in these proceedings, upon the subject of this O'Donnell and Willard patent. We do not proceed in this direction solely because of the objection made by counsel to question 153, but in order that we may exercise our undoubted rights to cross-examine any witness in connection with whose testimony matters purely of defense are brought into the case. If the court rules that all of this testimony on the O'Donnell and Willard patent taken at this time in connection with these *prima facie* proceedings should be ruled out and withheld

from consideration, such ruling will not be contrary to our expectations. However, if any of it is to be considered, we wish this matter to be presented in a manner which is commensurate with our rights on this subject.

Mr. Lyon: Defendant insists that complainant has no right to "cross-examine" this witness.

Q. 154. (By Mr. Blakeslee): Do you find any dovetails or lateral projections upon the shanks of the cutters of the O'Donnell and Willard patent?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 155. (By Mr. Blakeslee): Do you take it that any rotation of the cutters of the O'Donnell and Willard patent is possible when the shanks thereof are pocketed in the spaces between the partition 3 and the bowl 2?

Mr. Lyon: Objected to as leading.

A. No, sir. [270]

Q. 156. (By Mr. Blakeslee): Do you find more than one shoulder or enlargement upon the cutters of the O'Donnell and Willard patent reamer?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 157. (By Mr. Blakeslee): Do you find disclosed in the O'Donnell and Willard patent any object or purpose for this one shoulder, other than to impart an up-thrust of the cutters to the bowl and to cooperate with the shoulder upon the lower end of the casing in causing the collapshion of the cutters?

Mr. Lyon: Objected to as leading and suggestive.

A. No, sir.

Q. 158. (By Mr. Blakeslee): Do you find on the cutters of the O'Donnell and Willard patent reamer any lateral extensions or shoulders which are developed clear to the bottoms or cutting edges of the cutters so that the cutting edges are widened substantially to the extent that the upper portions of the body of the cutters are widened?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 159 (By Mr. Blakeslee): As a matter of fact, in the O'Donnell and Willard cutters there is nothing but a slight enlargement of the body of the cutter at each side, diminishing toward and disappearing at the cutting edge of the cutter? Is that not correct?

Mr. Lyon: Objected to as leading and suggestive.

A. Yes, sir.

Q. 160. (By Mr. Blakeslee): And taking into account the mass of the rest of the cutters and the stresses and strains which tend to cause rotation of the reamer-cutters, do you consider that these slight diminishing side enlargements are or would be materially effective in opposing any rotation of the cutters or any [271] tendency of the same to rotate, should such rotation be possible?

Mr. Lyon: Objected to as leading.

A. No, sir.

Q. 161. (By Mr. Blakeslee): Do you find at or adjacent to the cutting edges of the cutters of the O'Donnell and Willard patent reamer any material increase in mass of metal which might serve to materially prolong the life of the cutters by providing extra

metal for dressing out the cutters adjacent to the cutting edges?

Mr. Lyon: Objected to as leading, and upon the further ground that it is irrelevant and immaterial to the issues of this suit, inasmuch as the issues of this suit are directed solely to the underreamer-cutter as an article of manufacture, and do not embrace and involve the mode of operation of an underreamer as a whole, and, therefore, the mode of operation or principle of action of an underreamer-cutter when allied with the other parts of the underreamer can form no part of the issues of this case; and the testimony of this witness shows plainly that the theory of rotation of the cutter advanced by this witness has to do with the co-operation of the cutter of the underreamer with the parts and surfaces of the body thereof to which it is allied, and that such rotation is incidental to the co-operative action of the cutter in and with such underreamer body and surfaces, and not inherent in the article of manufacture, to wit, the cutter itself *per se*, and that such rotation is not in the cutter itself, nor is there any action of the cutter itself causing rotation of any of its parts, and that such rotation cannot take place except in conjunction with other parts in forming any part of either claim 16 or 17 of the patent in suit or involved in this litigation.

Mr. Blakeslee: Although we do not, as by this time will be manifest, agree with the views of counsel with respect to this objection discussed at length by him, and we may point out that from [272] the viewpoint of his remarks it must be proper to consider the advantages attaching to an underreamer-cutter having special or

particular features as one of the objects of invention is to better meet the service and uses to which a patented thing is to be put. If, for instance, it be established that rotation of cutters is an objectionable and prevalent trouble in underreaming, it certainly would be proper to point out that a patented underreamer-cutter which in use would eliminate such rotative trouble, was better and an improvement over prior cutters in that respect. The discussion of a patented improvement certainly cannot be limited to its inherent aspects and qualities, but must also in a fair and proper discussion of an invention go into the advantages of such inherent qualities and characteristics. Furthermore, it is to be pointed out that the last question related to the cutting edge of the cutter, and it is assumed that it is proper to discuss the work for which the cutter is designed.

Mr. Lyon: The further objection is urged to this entire line of examination and to all portions of the testimony of this witness, or any other witness in this case, with reference to the mode of operation or principle of action of an underreamer-cutter when in position as a part of an underreamer, that the complainant herein is estopped from claiming that claims 16 and 17 embrace or can be limited to or held to embrace any other portion of the underreamer than the underreamer-cutter *per se* as an article of manufacture, for the reason that on March 16, 1906, by the office action of rejection as shown by paper No. 4, forming part of Complainant's Exhibit "Wilson File Wrapper and Contents," the original claims 16 and 17 were rejected on the patent to Edward Double, No. 748,054, upon the

grounds stated by the commissioner of patents, as follows: "Furthermore, the article of manufacture cannot be limited by the device with which it is used." Complainant acceded to such rejection and position taken by the patent office, and [273] amended the said claims to avoid the objection and rejection just quoted, and he is therefore estopped from making a contention in opposition to the position thus taken by the complainant in the patent office, or claiming that claims 16 or 17 are commensurate with or cover the underreamer in connection with the said article or manufacture, to wit, the underreamer-cutter or cutters.

Mr. Blakeslee: Although this record shows that the questions or subjects of mode of operation and principle of action have been industriously followed in the examination of witnesses by counsel for the defendant, in fact under our repeated objections, we are nevertheless obliged to counsel for pointing out at this time the quoted matter of paper No. 4 of the "File Wrapper and Contents," being Complainant's Exhibit "Wilson File Wrapper and Contents." Such quoted matter very nicely, we submit, supports our contention that "the article of manufacture cannot be limited by the device with which it is used." We are attempting to prove that these cutters were not limited to those features of underreamer construction which are disclosed in Complainant's Exhibit "Wilson Patent," but have been shown to be susceptible of adaption to the specific features of construction of defendant's underreamer. In fact, it is our position exactly that this underreamer-cutter with its various features of improvement is adaptable to the varying conditions of service and to

combination with various other general features of underreamer construction, and that is what we are attempting to prove in this case. In order to so prove our contentions, it is necessary for us to show what this improved underreamer-cutter is capable of doing, which its features of advantages are and how versatile it is under any conditions of service within which its great advantages are susceptible of demonstration. Therefore, while not limiting the improved cutters to any specific underreamer organization, we are simply attempting [274] to show how such cutters co-operate with the remaining portions of complainant's and defendant's underreamer organizations.

A. No, sir.

Q. 162. (By Mr. Blakeslee): Do you take it that this single ledge or rib or shoulder upon the cutters of the O'Donnell and Willard patent underreamer in any way answers the purpose which you have discussed of the two lateral shoulders upon the bodies of the cutters of Complainant's Exhibit "Wilson Patent" and Complainant's Exhibit "Improved Double Reamer and Cutters" cutters?

Mr. Lyon: Objected to as leading and incompetent, and not the best evidence, and calling for a mere conclusion of the witness and not for a statement of facts.

A. No, sir.

Q. 163. (By Mr. Blakeslee): Now, as to the question of in-trust tilting of these cutters of the O'Donnell and Willard patent reamer, do you think that the terminal portions of *the* this single ledge or rib or shoulder upon this reamer materially assists the cutters in

imparting in-trust to the hollow-slotted extension or partition disposed between the cutters?

Mr. Lyon: The same objection.

A. No, sir.

Q. 164. (By Mr. Blakeslee): In an underreamer having cutters designed like those of the O'Donnell and Willard patent, namely, with shanks of increasing width calculating from the upper ends of the shanks downwardly, such shanks being closely pocketed in the spaces between the bowl 2 and the partition 3 when the cutters are in expanded position, is there any necessity for any enlargement of the bodies of the cutters laterally to oppose any rotatory tendency of the cutters?

Mr. Lyon: Objected to as leading and as irrelevant and immaterial to the issues of this suit, for the reasons before stated in full. [275]

A. No, sir.

Q. 165. (By Mr. Blakeslee): When you testified in answer to question 116 on page 118 of the record, that the lower ends of the bits are extended out or projected out at right angles to the shank of the bit or cutter, forming the shoulder, you intended to convey the idea that such slight extensions were merely the terminal portions or ends of the single shoulder developed in the curve of the outer face of the bits or cutters, did you not?

Mr. Lyon: Objected to as leading and suggestive.

A. Yes, sir.

Q. 166. (By Mr. Blakeslee): Would it be possible to insert a cutter constructed such as the disclosure in the O'Donnell and Willard patent in a reamer constructed substantially in accordance with the speci-

fications and drawings of Complainant's Exhibit "Wilson Patent," or in the reamer body, being Complainant's Exhibit "Improved Double Reamer and Cutters," so that such O'Donnell and Willard patent cutter would be operative and expand and contract properly, assuming that the sides of such cutter were prepared to permit of its introduction in the new environment with the closest or most perfect working fit which could be provided?

Mr. Lyon: Objected to as leading, and irrelevant and immaterial to the issues of this suit, and as incompetent, the witness not having qualified to answer the question.

A. No, sir.

Q. 167. (By Mr. Blakeslee): Would the addition of dovetails or ledges upon the shank of such O'Donnell and Willard patent reamer bit or cutter, without the provision of the two distinctly produced and provided lateral shoulders, upon the body of such cutter, and extending clear down to and including part of the cutting edge of the cutter—would such O'Donnell and Willard patent reamer-cutter serve the purposes and have the [276] advantages and attributes of a cutter such as that disclosed in Complainant's Exhibit "Wilson Patent"?

Mr. Lyon: Objected to as leading and calling for a mere conclusion, and an expression of opinion of the witness and not for a statement of facts, and therefore incompetent. Further, on the ground that it is indefinite and uncertain as to what alleged advantages and attributes are referred to.

A. No, sir.

Q. 168. (By Mr. Blakeslee): You have been engaged in the manufacture or assisted in the manufacture of underreamers and cutters thereof for some years, have you not?

A. Yes, sir.

Q. 169. And in giving your last answer have you taken into consideration all such experience and all of the lessons and teachings which have resulted from such experience in underreamer and underreamer-cutter manufacture?

Mr. Lyon: Objected to as leading.

A. Yes, sir.

Q. 170. (By Mr. Blakeslee): And the provision of this single up-thrust imparting a collapse-assisting shoulder upon the cutter of the O'Donnell and Willard patent underreamer in no wise increases the width of the cutting edge of the cutter, does it?

Mr. Lyon: Objected to as leading.

A. No, sir."

The three prior Double patents, Defendant's Exhibits Double Patents Nos. 1, 2 and 3, are devoid of anything pertinent to the Wilson invention, and particularly the claims found infringed. Double Patent No. 1 is the patent in which defendant owns an interest and which complainant's company has been found infringed in the companion suit, and it is the patent from the structure of which the defendant here departed in infringing the Wilson patent in suit. It does not suggest the pronged formation in any of the three cases reflecting the Wilson invention, either to permit close collapshion of the cutters, to permit assembling at the bottom of the

reamer, or as carrying bodies for a lug element or elements or cutter ways. The lug element is not disclosed or even suggested in any respect, nor are the lateral shoulders upon the cutters for co-operating therewith, and therefore the combination of such body portions with lugs and cutter ways and cutters with lateral shoulders, either with or without the lug elements or a continuous lug element, is entirely missing in Double Patent No. 1. This is the device which *failed* until it was reorganized to include the Wilson invention—failed as against the better Wilson reamer.

In Double Patent No. 2, we find the same paucity of anything to anticipate the Wilson invention. It is true that we find in this patent supplemental lugs or dovetails 10 *on the cutters* entering pockets or grooves 15, which are said to hold the slips and prevent them from spreading outwardly. In other words, *these are outthrust bearings similar to the lugs 14 forming ways*, and the lugs 10 are really supplemental dovetails or shoulders on the cutters, simply added to the shoulders in the Double Patent No. 1. They are, as a matter of fact, on the shanks of the cutters, as clearly shown in Figure 5, and not upon the working body of the cutter as in the Wilson and the infringing Double's, nor are they any broader than the working body, and there still exists, as the trial court has said with respect to the Double patent of the original design, the old Double theory, for "the slotted web of the lower extension helped to form a pocket for the cutter and furnished the inthrust and outthrust-bearing for the cutter shanks, and thus extended to the very bottom of the reamer. This, necessarily, resulted in two things: an

inner-bearing for the cutter head, narrow as compared with the diameter of the extension upon the reamer body, and weakened to some extent by the slots therein." There is no suggestion of any lateral shoulders on the cutters or of the lug elements 2' having the spreading bearings 9 of the Wilson patent. There are no enlargements of the body of the cutter, no lateral shoulders to prevent rotatory action, no enlarged cutter body to provide more stock for dressing out, no enlarged reaming edge on the cutter bodies, and no widening of the cutters to prevent "key-holing" or "key-seating." The "prong" elements of complainant's patent, in no one of the three "cases" *supra*, is found in this patent, and nothing is found therein but supplemental 10 shoulders on the cutters, or extensions of the shoulders or ridges 12, provided specifically for the purposes above-mentioned, to take outthrust, and to prevent the cutters thus from spreading outwardly. [See lines 16 to 21, p. 2, of the specification of the Double Patent No. 2, and also lines 36 to 45, same page, R. p. 985.] This reamer is still the "old design" Double reamer *which defendant departed from in infringement*. If any one of these Double patents was the same or as good as the *Wilson reamer*, *why did defendant not stick to its own instead of appropriating from Wilson?*

Defendant's Exhibit Double Patent No. 3 has been considered somewhat by the trial court, particularly with respect to claim 8, found valid but not infringed, and therefore on an issue which is not directly presented here. But we believe the honorable trial judge erred with respect to any limitation to be read into claim 8 because of this patent, or as to any relation

thereof to the patent in suit, inasmuch as the pin 22 of this patent is merely a part for assembling together the detachable portion 10 of the body, which carries the integral portion 10', reaching up into the bore 5, and which part 10 co-operates with the cutters to produce expansion and collapsion. The cutters have nothing to do with the spaced walls 3 and 3' in collapsion and expansion, and therefore these walls cannot be considered prongs within the meaning of the Wilson patent, irrespective of the fact that they have no lugs, and further irrespective of the fact that such spaced walls do not permit any collapsion of the cutters between them, and do not permit assembling of the reamer features between them, and of course would not be remachined because they are not *working* parts. As hereinabove pointed out it is necessary to use the "sub" or middle joint or screw cap with the body of this reamer, and to remove the same to set up the nut and tighten the spring, and there is no indication that this underreamer is to be ever disassembled after once assembled, the cutters being merely pulled down so that the key 8 can be driven out and the cutters thereupon detached leaving the body part 10 attached to the body after they are assembled together. The disadvantage of using the cutters slotted through for such a cutter key, and the weaknesses resulting therefrom, are hereinabove pointed out, and, as shown particularly in the testimony of Pickering and Bailey, the eyes thus produced cause breakage in the cutters at such points, and such eyes are not found in the Wilson cutters, but merely key pockets or sockets or recesses 18 as shown in the Wilson patent. The strong integral

tee of the Wilson patent and Type "F" of defendant could not be used in the reamer because it is not a "bottom-assembled" reamer.

Thus, we submit, this Double Patent No. 3 should have no effect whatsoever in respect to claim 8 and of course is not profitable at all with respect to the subjects of claims 9 and 19 found infringed, as the court found. This of course is true because the pronged relations, as stated, are not present, in any of the three cases, nor have the cutters any of the features of the invention of Wilson, including lateral shoulders, nor even the cutter shoulders of Wilson claim 9 which in Wilson and the infringing structures are located inside the fork or between the prong elements. In other words, this patent shows neither the bearing-faces 4^3 nor the bearing-shoulders 4^2 of Wilson. This patent is a bowl mouth type patent like the Jones removable bowl reamer, and with the other Double patents is open to all the objections of rotatory action tending to break and twist the cutters and any dovetails or shoulders thereon, and tending to "key-seat" or "key-hole" the hole walls. It has the old Double "narrow cutter" theory, presented in each of the three Double patents. The file wrapper and contents of the Wilson patent disposes of the Double prior art effectively. The court has considered this Double Patent No. 3 particularly with respect to the Type "F" infringing reamer of defendant. For the reasons above given we submit that this patent could have had no bearing whatsoever upon the proper interpretation of claim 8, although such claim was not found infringed. The essence of claim 8 is said by

the trial court to have been the crosspiece. It was one element of the combination of that claim, and is not shown in Double Patent No. 3, for in such patent the part held between the spaced walls 3 and 3' is a portion of the body of the underreamer, which is intended to remain in place held by the pin 22 and it is not held in any sense between the working "prongs," within the sense of the Wilson patent, as above pointed out, in any of the three cases.

There is in evidence also in this case another Jones reamer known as the Jones round nosed reamer, but on the trial defendant withdrew this reamer, as pertinent in no manner to the issues on the prior art side. It does not show the combination, interrelation and mode of operation, nor the construction of the Wilson patented invention, nor can it be operated in the same manner, nor assembled in the same manner, nor remachined, and it is not worthy of time and space devotion in this case.

This comprises the prior art relied upon by defendant in its weak attempts to anticipate the many phased, featured and sided important invention of the Wilson patent in suit. *The court has said it does not anticipate.* [R. bottom p. 66 to p. 67.] It is the sort of attempt condemned by the authorities, in that it seeks to set up mere abandoned experiments and unadopted and untried or dissimilar things and subjects of publications by patent, in a blunderbuss attempt to strike down some part of the meritorious invention of a patent which has become the *dominant patent in the art concerned*. The law is so thoroughly established as to such attempts to destroy and besmirch a meritorious

invention that we may without further discussion on this head pass on to the simple subject of infringement. On the subject of abandoned experiments, such as the Jones round nosed reamer, this court's opinion in *Parker v. Stebler*, 177 F. R., is in point.

Infringement.

In entering upon the discussion of infringement, we wish to quote from the memorandum of decision of the trial court, pages 76 to 79, inclusive, as follows:

“Passing to claims 9 and 19, it has already been found that, as ways for the cutter to slide, or ride on, the faces of the prongs and lugs were no more than equivalents of the ways found in the Double invention; but, in so far as these prongs or lug faces afforded bearings for the cutter when in reaming position is concerned, a different question is presented, and this is the feature covered by claims 9 and 19.

In the machine of the Double patent and original design, the slotted web of the lower extension helped to form a pocket for the cutter and furnish the inthrust and outthrust bearing for the cutter-shanks and extended to the very bottom of the reamer body. This, necessarily, resulted in two things: an inner bearing for the cutter head, narrow as compared with the diameter of the extension upon the reamer body, and weakened to some extent by the slots therein.

In the patent in suit, the lower portion of the outer web is cut away, giving the cutter less lateral and greater inthrust bearings. The lugs on either side are thereby created. The outer face of these lugs form bearings for the inner shoulder on the cutters. This

formation enables the maker—because of the removal of the side web—to give the cutters a wider inner face and inner bearings at the outer side of the inner face of the cutter. [67]

The bearings on the ‘lugs’ thus afforded—being in the direction of the extension of the enclosing web, necessarily, make a stronger formation than the bearing confined, as in the original Double design, to the slotted intersecting cross web. The broader cutter-head and broader bearing furnished by the device of the patent in suit, obviously, tend to lessen any tendency of the cutters to twist in operating and there is testimony in the cause, which I am inclined to credit, that, with the narrower Double cutter, the work of the reamer is more likely to result, under certain recurring conditions, in what is termed ‘key-holing,’ that is, in the cutters which are hung opposite to each other, each getting started to cut downward in the same place and not reaming uniformly around the hole.

In the so-called ‘Double Improved’ underreamer and in Type ‘F,’ with the interposed block in position, a lug at the lower end of the reamer body appears and, with the block removed in Type ‘F,’ two lugs appear, in relatively the same position and with relatively the same bearing faces as those upon the lugs of the patent in suit.

In so far as these bearings in defendant’s ‘Double Improved’ and Type ‘F’ extend upon the faces of the lug or lugs beyond the sides of the diameter of the pocket in which the cutter is mounted, they are mechanical equivalents of the bearing on the outer face of the lugs in the patent in suit, and the same is true

of the widened portion of the inner face of the cutter adapted to bear upon such portion of the face of the lug. It matters not that, in the device shown in evidence, the cutter head extends but a little distance upon this bearing, for to that extent, defendant has appropriated what does not belong to it and, therefore, infringes.

Upon the argument, it was contended by the defendant, that the only novelty and patentable feature of the patent in [68] suit was the pronged formation which permitted the collapse of the cutters between the prongs. If cutting away the interposed web in the Double device to allow the cutters to collapse more completely was patentable, on the same principle, cutting away the side web to give the cutter yet a greater bearing was also patentable and, if appropriated, infringement results.

In the earlier Double devices there were secondary dovetails adjacent to the junction of the cutter-head and shanks, with corresponding ways in the inner faces of the extension, forming the recess in which the cutter is mounted on the body. These added ways caused an outward flare at the mouth of the recess, or pocket. As these ways were made deeper and the flare increased, a wider bearing would be given an opportunity for a wider faced cutter to bear upon it; but when defendant departed from this form of construction and entirely sheared away the side web of the extension to form a lug, the bearing faces to accommodate the wider cutter-head, he appropriated the invention and conception of Wilson, and particularly of the patent in suit. The fact that defendant did not appro-

priate the, perhaps, relatively more important conception of Wilson, whereby the cutter-shanks were allowed to collapse between the prongs, does not excuse it, or take from the infringement it has practiced, for the seat or bearing of the cutter-head on these faces, or lugs, is not dependent upon the swing in collapse of the cutter-shanks between the prongs.”

Also we wish to quote from the memorandum of the trial court of ruling on rehearing, from page 84 R., as follows:

“Counsel for defendant has again urged upon the court consideration of the merits. The forked formation of complainant’s reamer body was essential to the complete collapse of the cutters; but it was not essential to the co-action in the particular in which infringement is found. The fact that, in describing, in the claims, a member of a machine which performs two functions in such a way as to disclose a feature of its fitness to perform one function, which feature is not essential to the discharge of its other function, does not warrant competitors in dropping such feature and thereby appropriate one-half of the invention and its advantage, nor prevent the court from according the patentee such a range of equivalents as will fairly protect him in the substantial merits of his invention. If so, form becomes everything and substance nothing. Rehearing denied.”

We have seen from the discussion of the nature and characteristics, meets and bounds of the Wilson invention hereinabove, that defendant appropriated in its infringement the invention of Wilson, in all of its

characteristics and aspects save and except the one aspect of collapshion of the cutters between the prongs; so it would seem that the trial court had full warrant to go further than it did, and that the opinion might have found that the defendant went very much further than to “thereby appropriate one-half of the invention and its advantage,”

An examination of the infringing reamers, the Improved Double reamer with cutters, and reamers Types “D,” “E” and “F,” will disclose no margin for argument that the substance of each of claims 9 and 19 found infringed is not duly and fully embodied therein. As to claim 9, there is found in each of the same a body terminating in a portion designated in the patent “prongs,” and within case 3 above mentioned in dealing with this term “prongs” provided with shoulders on the inner faces of the prongs forming cutter-ways and terminating in downwardly projecting lugs as well as cutters mounted between such prong-designated parts and having shoulders inside of the fork produced by such prong-designated parts and having faces to bear on the projecting lugs. The testimony of W. W. Wilson in particular points out these features and their presence in the infringing reamers, as above indicated and quoted. The same is true with respect to claim 19, in which the prong-designated elements find their structural answer, clearly, in each of the infringing reamers, together with the cutters each having the two shoulders and a bearing-face on the inner side of each of the two shoulders to engage said prong-designated parts. The “shoulders” of claim 9 are clearly the *lateral extensions*

having the bearing faces 4^3 on their inner sides—not the “corners or bearing 16” at the *tops* of such *shoulders*. In other words, the defendant in each of these reamers clearly employs, without the assistance of any indulgent application of the doctrine of equivalents, the shoulders $2''$ to form the ways 3 of the Wilson patent, the lugs $2'$ of the Wilson patent, the spreading-bearings 9 upon such lugs, the cutters analogous to and performing the same functions as the cutters 4 of the Wilson patent and mounted between the prong-designated parts 2 of the Wilson patent, such cutters having shoulders as 4^2 located inside of the fork comprising the prong-designated parts, such shoulders as 4^2 cooperating with the shoulders $2''$ on the prong-designated parts, and the cutters likewise having bearing-faces as 4^3 to bear on the spreading-bearings 9 upon the lugs $2'$; such bearing-faces as 4^3 being upon shoulders projecting oppositely and laterally from the cutters. Claim 19 is of course broader than claim 9, not having all the limitations thereof, and the lugs $2'$ not being specifically mentioned therein. But each claim *for a distinct combinative entity, is clearly embodied in the infringing reamers.*

When we come to the Type “F” reamer we find that claim 8, and other claims such as 4, might well, and we contend, properly, have been found infringed therein, in accordance with the above discussion of the Wilson invention and the nature and substance thereof and the many-sidedness thereof. Clearly in Type “F” there is a well defined cavity between the prong-designated parts carrying the shoulders on the inner faces thereof forming cutter-ways, and it would appear that the

bridging of the space between the lower ends of these prongs by the removable block and bolt would not disturb the nature of these prongs as coming within case 2 above, namely, permitting assembling at the bottom and remachining, any more than the provision of the detachable crosspiece or bolt in the Wilson. This Type "F" is clearly the most flagrant of all the infringements, and includes the detachable key used in place of the block 7 to form a seat for the spring, which key was the claim of Bole in the Bole and Double *versus* Wilson *et al.* litigation decided adversely to the complainants on appeal. It would seem as though complainant herein should have been particularly granted a more extensive finding of infringement as to this form even than as to the other infringing types of defendant's reamers. The testimony of Hubbard [R. p. 933] and of Mills [R. p. 964] shows clearly the usability of the Type "F" reamer without the detachable block at the lower end thereof. Hubbard testifies [R. pp. 933-937] that he witnessed such use of defendant's Type "F" reamer, or saw such a reamer withdrawn from the well hole after reaming, without the detachable bolt between the forks or prongs at the end of the body and that there was no such block connected with the reamer at that time; but that the bolt used between the prongs in the Type "F" reamer was in place in the reamer and that the reamer was completely set up with the exception of the block; and that the reamer showed it had been used. He testifies that the reamer was being run or operated while he was at the well about half an hour before it was pulled out, and thus it was made plain that this Type "F" reamer was actually operated

without the block which, defendant would have it, was necessary for its use to give full strength and attack of inthrust of the cutters. *It is significant that defendant made no attempt to rebut this testimony, and it must stand as uncontradicted and show that the reamer was really not intended, nor designed, to be used without this block; and, as we contend, that it was introduced as a mere subterfuge, being in effect but a bushing or enlargement, to be used if desired, upon the detachable bolt which is the equivalent of the detachable bolt or crosspiece 11 of the Wilson patented reamer.* The trial court does not agree with us, as to this, nor with our contention that the block is employed as a subterfuge to colorably avoid infringement, as was correspondingly done in the anti-skid tire chain device of Weed Chain Tire Grip Co. v. Cleveland Chain & Mfg. Co., 196 Fed. 213, and in Parsons Non-Skid Co. v. Atlas Chain Co., 198 Fed. 399. In those cases the anti-skid chains were sold or supplied with adjuncts, attachments, directions and the like which, it was contended by the infringers, avoided any intent to infringe or any real possibility of infringement. Of course in the case at bar we are now only discussing this feature of the detachable crosspiece 11 or safety bolt, and its counterpart in the Type "F" defendant's infringing reamer which has been found to infringe otherwise in other respects. But, as in the Weed and Parsons cases *supra*, where, for instance, a tie wire or strap was provided, to be used to prevent the chains from "creeping" on the tire, and thus to avoid the use of the essential characteristics of the invention; here, we contend, with similar intent, we find here the employment of a block

on the safety bolt or detachable crosspiece 11, *which either with or without the block has the same function to prevent loss of cutters in the hole should the spring-actuated rod or stem 5' or cross or tee 5 break, and to brace the prongs against spreading or distortion; and we find this infringing Type "F" reamer actually used without this block, as in the Weed cases the anti-skid chains were used and of course intended to be used without the utility-limiting factor of the tie wire or strap or the like.*

More than that, we have in this case the deposition of a qualified expert and manufacturer, Mills, [R. pp. 964-973], who has manufactured and repaired underreamers and is acquainted with the Wilson and Double underreamers as to their construction, and who, upon examining the Complainant's Exhibit Reamer Type "F," states that this Type "F" reamer can be operated without the block, for the reason that without the block there is just as much, if not more, metal than there is in the Wilson reamer, that is, just as much metal in the parts on the forks or prongs at the lower end of the body with which the cutters co-operate or upon which the cutter shoulders rest when the cutters are expanded; and that these surfaces would stand up under the strains imposed by the cutters in operation and resist tendencies to sheer or crush, just as well either with or without the block; that the cutters would be expanded either with or without the block; that the reamer would be better off without the block; that the cutters would not touch the bolt even when contracted nor when expanded; that if the reamer were used with a block in it the block would soon become battered up

and have a tendency to spread the reamer and break the bolt; that the block would tend to shear off the bolt and it would be a difficult matter to remove it; and that after continued use the hole in the block would soon become distorted so the bolt could not be passed through it; and that the block would become worn and stretched out and elongated so it would fit too tight between the prongs, meaning a refitting job or putting in a new block; that he has repaired underreamers and seen them in operation and examined them after they were withdrawn from the well hole. All this shows that the Type "F" reamer would really be a better reamer when used without the block, as Hubbard saw it used, than used with the block. *It is significant that this testimony was not rebutted. It would seem as though our contentions that this block really is a mere subterfuge are borne out by the record, and that defendant in Type "F" reamer has a reamer which infringes claim after claim of the patent in suit found valid but not infringed, being a mere extensive infringement than the other infringing reamers, and using the "prongs" in all the three cases postulated above, with the exception of case 1.*

Further, see the testimony of E. C. Wilson [R. p. 523 *et seq.*], as follows:

"Q. 481. Referring now to Complainant's Exhibit Reamer Type 'F,' will you please state, judging from your experience in connection with underreamers and the manufacture, sale and use thereof, whether this underreamer could or could not be operated with the detachable portion at the lower end thereof removed.

A. It could not be operated just the same as the Wilson underreamer can be operated without the safety bolt.

Q. 482. What would be the effect of the removal of such portion with respect to the expansion and contraction of the cutters?

A. The cutters would expand and contract in just the same manner, for the reason that the shoulders of the cutters, namely, those portions which extend at right angles to the shanks of the cutters extend out far enough to ride upon the two prongs of the body and which bearing is sufficient to expand the cutters or to permit them to contract over said bearings.

Q. 483. Then what do you take it to be the mechanical object of the provision of these detachable features in this reamer?

A. The object of the bolt is to form a safety device or precautionary measure against the loss of cutters should this tee upon which the cutters are attached break in use. And it has the additional purpose of preventing the spreading of the prongs if used under abnormal conditions. The block is held in place by this bolt and the purpose of the block is merely an effort on the part of the so-called inventors to evade the Wilson patent.

Q. 484. Do you consider that the provision of this block introduces any feature which differentiates the reamer from the reamer of the Wilson patent in suit in construction and operation? [438]

A. I think not. I am convinced that the block will add nothing whatever to the utility of the tool, and I am convinced that very slight use of the tool would

soon burr the hole in the block, or to so burr the bolt itself as to make it practically impossible to replace the block when it had once been removed. The net result would be that an operator would simply dispense with the use of the block and use only the safety bolt, and as the reamer, as I previously testified, could be used without the block.

Q. 485. You have previously referred to a part of the Double underreamer, or the body of the same, such as is exemplified in 'Complainant's Exhibit Double Reamer and Cutters,' as 'a hollow-slotted extension,' being that portion of the body at the lower end thereof, in connection with which the cutters execute expanding and contracting action. Do you find in such hollow-slotted extension in this reamer known as Complainant's Exhibit Reamer Type 'F' and 'Complainant's Exhibit Defendant's Reamer Type 'F' under pleadings in equity suit No. B-62,' etc.?

A. There is no such hollow-slotted extension in that type of reamer.

Q. 486. Is there in this type of reamer, at the lower end thereof, or is there not, a slot in addition to a hollow?

A. No, sir.

Q. 487. How would you define the part of the block through which the bottom bolt passes? That is, the detachable block?

A. It is merely a piece of metal so constructed as to fit into the bore or opening between the forks and having opposite faces which, when the block is in place, are flush with these bearing faces and spreading-bearing faces of the prongs of the reamer body. The

block has a hole drilled through from side to side through which hole the safety bolt extends and by which [439] means the block is held in place in the body between the prongs.

Q. 488. Can or cannot that hole in such block be properly defined as a hollow and a slot?

A. It certainly cannot.

Mr. Blakeslee: Defendant not being represented as yet, it is assumed that the cross-examination of the witness party Wilson is waived. This closes the deposition of E. C. Wilson.”

From the gist of this testimony the word “not,” in first line of answer to Q. 481, *supra*, clearly is an error and should be omitted.

It has been the policy of this defendant in its piracy to crowd closer and closer to the exact and specific reamer of the Wilson patent in suit. In other words, its infringement has been flagrant and wilful, and this Type “F” reamer particularly evidences such attitude. It is shown in the record at R. pp. 1098 and 1100, and the Wilson reamer at R. pp. 1010 to 1018, inclusive. Infringing reamer “D” is shown at record page 1099. Note the middle body joint, which is not required in Type “F” because it can be assembled at the bottom.

There has been no serious attempt made by defendant, as shown in the testimony of defendant’s expert Knight and discredited alleged quasi-expert Griffin, to deny that the defendant has altered its underreamer to include the structural features and combinations thereof of claims 9 and 19 found infringed; and, resultantly, the

same is true with respect to others of the claims hereinabove discussed and which, we contend, also were infringed. The application which has been made of the patent to the infringing structures, as in the testimony of W. W. Wilson, *supra*, and which has been made in this brief, leaves, it would seem, no room for real argument on this head. The principal argument made by defendant in the lower court as against infringement was that somehow or other there was a difference in the mode of operation as between the Wilson patent reamers and those of defendant. Counsel, however, strongly asserted in the companion case, *Union Tool Company et al. v. Wilson & Willard Manufacturing Company*, 237 Fed., and was sustained in the opinion of the trial court, that the mode of operation of the Wilson underreamer and of the Double underreamer is substantially the same; and in this case we find counsel contending that the mode of operation of the infringing reamers here is the same as that of the Double underreamer or of Defendant's Exhibit Double Patent No. 1. It is not necessary, of course, that the mode of operation be changed in order that infringement take place, *for an infringer may retain his prior mode of operation and simply vary the agencies and instrumentalities and combinations thereof which perform in accordance with the given law of operation.* Broadly speaking that is what defendant did here. It *improved* the mode of operation and amplified it, to include in these reamers the new combinations and features of complainant's invention, as by providing the "lug" elements 2' and the lateral cutter shoulders with the bearing-faces 4³ thereon for co-operation with such lug elements and

the spreading bearing 9 thereon; either with or without the further combined features of the cutter-ways 3 on the body extension and the shoulders 4² on the cutters co-operating with such cutter-ways, which are also used. Certainly, in the operation of reaming the underreamer became superior because of this reorganization in accordance with the Wilson invention. The reasons for that have been amply pointed out above—prevention of rotatory action tending to rip out the cutter-ways, increased cutting zones on the cutters, etc., etc. *That the particular mode of operation or contraction of the cutters to put the reamer into or put it out of condition to operate as an underreamer was not materially or radically altered, is not material.* As a further example or illustration in this respect, it may be pointed out that the substitution in Type “F” infringing underreamer of the single piece key to serve as a seat for the spring surrounding the rod or stem carrying the cutters, for and in the place and stead of the fixed shoulder in the hollow body of the other infringing reamers, while producing in such Type “F” reamer *a new combination and an infringement of the patent now issued to complainant’s assignee May 16, 1916, as hereinabove recited*, just the same as the Wilson reamer was found by the lower court an infringement on the now cancelled Bole patent for that key combination;—nevertheless, such modification of either underreamer to include such key element, did not in any respect change the *mode of operation* of the underreamer, or *the method of expansion and contraction of the cutters*, as will be manifest by comparing the defendant’s Type “F” reamer with the other infringing types. It is

true it provided for a new method of assembling the parts of the reamer at the bottom of the reamer, and permitted remachining, *but it did not change the mode or principle of operation of the underreamers*, nor the mode of expanding and collapsing the same. The testimony of Knight, defendant's expert, will be found replete with allusions to the retention in the infringing underreamers of the mode of operation of the Double patent No. 1. The Wilson underreamer, the subject of the Wilson patent, having been found to infringe the Double patent No. 1, in 237 F., and the modes of operation therefore to have been substantially the same, and defendant's contending that the mode of operation of the infringing reamers is the same as that of Double patent No. 1, the circle of logic is completed for the purposes of this case, and the mode of operation of the infringing reamers must be considered sufficiently equivalent to the mode of operation of the complainant's patented underreamer, for all purposes of finding infringement. This is the defendant's own position we are now stating. But were it open to attack, we still contend, for the reasons above pointed out, that infringement must follow, *for alteration to infringe is manifestly not necessarily followed by change of mode of operation*, as instanced by the underreamer key combination patent. The Type "F" reamer, as we see, has further features of change over and above the other infringing types, as to mode of assembling the parts at the bottom of the reamer, remachining the reamer by cutting back its prongs when worn, etc.

Within the doctrine of *Stebler v. Riverside Heights* etc., 205 Fed. 735, *supra*, the defendant has taken

of the substance of the Wilson invention, and has been forced to do so, in order to attempt to keep any of the underreamer business as against the Wilson underreamer competition, rather than to negotiate to obtain a license to use the Wilson invention. In only one respect is the invention of Wilson not utilized to its full advantage in the infringing reamers, and that is with respect to the close collapsion of the cutters between the prongs. In other words, in the Type "F" reamer, the gap or cavity between the prongs is not sufficiently wide. Were it a little wider, the reamer would operate just as well, and this extra advantage of close collapsion of the cutters in the space between the prongs would result. And defendant was driven to infringe in spite of its strong backing in the field by such a concern as Union Oil Co., who first used its Double reamer, but like most everybody else went over to use of the Wilson reamer. [See R. 484 to 488, inclusive.]

At this point we wish to refer, on the general question of infringement, particularly with respect to the coaction of the cutters with the bodies in the earlier defendant's Double infringing types, which, of course, is likewise present in the Type "F" reamer, to the testimony of the complainant, which likewise deals with the extensive adoption of the invention by defendant in the infringing reamers. We quote the testimony of the complainant [R. 127 to 146], as follows:

"Q. 81. When did you first see a Double underreamer with a body and cutters like that of Complain-

ant's Exhibit Improved Double Underreamer Body and Cutters?

A. I think it was during the year 1905. Probably 1905.

Q. 82. Since the time last mentioned, have you kept in touch with the underreamer products of the defendant Union Tool Company and its predecessor, as found in the market?

A. To a certain extent, yes, sir.

Q. 83. What have you to say as to the relative numbers of underreamers, the products of these companies, which you have seen since 1906, that is, the relation between the number of old style Double underreamers and the Improved Double underreamers?

A. The improved Double underreamer has almost entirely superseded the old style. [111]

Q. 84. And can you say of your own knowledge what has been the preference in the oil fields, if there has been any, since the year 1906, as between the old style and the improved Double underreamer?

Mr. Lyon: Objected to as leading and calling for a conclusion of the witness, incompetent, no foundation laid, and the witness is not qualified to answer the question.

Q. 85. (By Mr. Blakeslee.) I will withdraw that question. Since the year 1906, have you kept in touch with the art of underreaming in the fields of California?

A. Yes, sir.

Q. 86. To what extent?

A. To a very considerable extent. It has been my

business to know what the trade demanded and whether it was being supplied.

Q. 87. Have you made any trips to the various fields in California during that period of time?

A. Yes, sir; many of them.

Q. 88. To what fields, for instance, and when?

A. The Coalinga fields repeatedly, Taft or Midway fields, the McKettrick field, the Sunset fields, the Kern River field, the fields between Coalinga and McKittrick, or the Devil's Den country, as it is usually known, the Salt Lake fields of Los Angeles, the Santa Maria field, the Santa Paula field, the Newhall field, the Whittier field and the Fullerton field.

Q. 89. How recently have you made trips to any of these fields, and which?

A. I have been in the Salt Lake field in the last week or ten days.

Q. 90. Any time last winter and a year ago this last winter?

A. Yes, sir; I have been in the Salt Lake fields several times during the last year, and I have been in the Taft field [1112] and the Sunset field and Maricopa fields, and one trip, especially, was made during the winter of 1912-13.

Q. 91. What was your mission on that visit last mentioned?

A. For the purpose of obtaining evidence in the suit of the Union Tool Company vs. The Wilson & Willard Manufacturing Company.

Q. 92. Now pending in this court?

A. Now pending in this court.

Q. 93. And what was the subject of that litigation?

A. The Union Tool Company had sued the Wilson & Willard Manufacturing Company for alleged infringement of the Double underreamer patent by the Wilson & Willard Manufacturing Company.

Q. 94. Is that the same company you have referred to in this deposition?

A. It is the same company.

Q. 95. And what class of apparatus did you particularly inspect in those fields at that time?

A. We were inspecting underreamers particularly.

Q. 96. And where was this?

A. That was in the Midway fields and in the Sunset and Maricopa fields.

Q. 97. And what did you find or which type of Double underreamer did you find to be in particular use in those fields?

A. The improved type of the new style Double underreamer, as it is commonly known.

Q. 98. Now, you have testified that you turned out or had turned out the first Wilson underreamer in January or February, 1904. I wish you would state definitely whether prior to that time you ever had seen a Double underreamer of the improved type?

A. I had not. [113]

Q. 99. Will you please now compare Complainant's Exhibit Old Style Double Reamer Cutter No. 1 with cutter Fig. 4, of Complainant's Exhibit Wilson Patent, and a cutter of Complainant's Exhibit Wilson Reamer?

A. You wish me to compare the old-style Double underreamer cutter No. 1 with cutter 4?

Q. 100. Yes. That is the number in the patent. And a cutter of Complainant's Exhibit Wilson Underreamer.

A. The old style Double underreamer cutter consisted essentially of a shank and dovetail shoulder on the sides of the shank of the cutter, and a body at the lower end of the shank, which body is virtually an extension or in a plane of the outer edges of the dovetails of the shank. In other words, practically the same width as the outer faces of the dovetail. The bearing face at the back of the cutter, which face rests against the spreading-bearing of the hollow slotted extension of the Double underreamer body, is so placed as to be at the back of the shank of the cutter, and no bearings extend on the back of the body of the cutter itself, as the back of the body of the cutter did not in any way contact with the reamer body itself. The Double underreamer cutter of the old style type as shown by Complainant's Exhibit Old Style Double Reamer Cutter No. 1, differs from the cutters as revealed by complainant's patent in that the spreading-bearings, or rather the bearings 4³ of the Wilson underreamer cutter, are a part of the cutter body and are integral with the cutter body and not a portion of the shank of the cutter, so to speak, whereas the corresponding bearings or the bearings of the Double underreamer cutter, old style, which coact with the spreading-bearings in the old style Double underreamer body, were placed on the shank only of the cutter. The cutters shown in Complainant's Exhibit Wilson Underreamer are practically the same as those revealed by Complainant's [114] Ex-

hibit Wilson Underreamer Patent, the bearing faces being on the body or extended shoulders of the body instead of on the shanks of the cutter. The Double underreamer cutter, old style, has a V-shaped groove planed across the shank of the cutter, which groove forms the upper boundary of the bearings just referred to in describing the old style Double underreamer cutter. No such groove appears on the cutter of the Wilson underreamer, Complainant's Exhibit or Complainant's Patent.

Q. 101. Will you please now compare the cutters of Complainant's Exhibit Wilson Patent and of Complainant's Exhibit Wilson Underreamer with the cutters of Complainant's Exhibit Improved Double Reamer and Cutters?

A. The improved Double underreamer cutter consists of a shank with dovetail shoulders on the back of the said shank, and the body of the cutter being partially an extension of the shank, and the said body having lateral extensions or projecting shoulders which extend at right angles to the shank and dovetails of the shank and project beyond the extreme outer faces of the dovetails. The improved Double underreamer cutter has bearings on the inner faces of the shoulders of the body, which shoulders project at right angles to the shank and dovetails. This extended shoulder increases the width of the cutter body and the bearings at the back of the cutter which rests against the spreading-bearing of the Double underreamer body when the cutters

I. B. reaming
are expanded into ~~leaning~~ leaning position and are

extended across the entire back of the body of the cutter. In other words, the shoulders which project at right angles from the shank of the cutter and dovetails thereof have bearings on the inner faces of them, which bearing faces coact with the spreading-bearing of the Double underreamer body. In this respect the improved Double underreamer cutter differs from the old style Double underreamer cutter, and also in that respect the improved Double underreamer cutter, is like the cutter of the Wilson underreamer. [115]

Q. 102. Please compare the position or arrangement of the bearing surfaces of the cutters of Complainant's Exhibit Double Improved Reamer and Cutters, with the position or arrangement of the bearing surfaces of the cutter being Complainant's Exhibit Old Style Double Underreamer Cutter No. 1.

A. The old style Double underreamer cutter No. 1 was so constructed as to have all the bearing face which coacts with the spreading bearing of the Double underreamer body placed at the back of the shank and dovetail, and said bearing was in no respect a part of the body of the cutter, the bearing being above the body of the cutter. The corresponding bearing as shown by the improved Double underreamer cutter was transferred further down the shank of the cutter and made to extend and to form the back of the extended shoulders of the cutter body.

Q. 103. Assuming that the cutters, Complainant's Exhibit Improved Double Underreamer and Cutters, were of a proper standard size to fit the body, being Complainant's Exhibit Old Style Double Reamer Body,

would it be possible to apply such cutters to such body for use therewith?

Mr. Lyon: Objected to as leading.

A. No, sir; they would not fit the old style body.

Q. 104. (By Mr. Blakeslee.) And why?

A. For the reason that the new style cutters having the bearing extended downward and forming the upper portion of the entire back of the cutter body, could not fit up into place in the old style reamer body without removing the lower end of the dovetailed recesses in the old style body to permit the extended shoulders ~~to permit~~ of the new style

I. B. Double underreamer cutter to ride up on to the spreading-bearing.

Q. 105. What provision is made, if any, to this end, in the body of Complainant's Exhibit Improved Double Reamer and Cutters? [116]

A. There is a V-shaped groove machined laterally across the end of the underreamer body, whereby the lower end of the dovetail recesses are removed, and which in turn forms a continuous bearing upon which the bearing at the back of the body of the cutters may rest. By these V-shaped grooves the parallel bearing faces of the hollow slotted extension of the reamer body are extended so as to accommodate the widened body of the improved Double underreamer cutter. Furthermore, the portion of the hollow slotted extension which projects downwardly below the upper corner of the V-shaped groove is thereby transformed into a projecting wedge or spreading-bearing, whereby the spreading surfaces of the improved Double underreamer body are extended downwardly until they are

interposed between the bodies of the Double improved underreamer cutters just as at the spreading-bearings Fig. 9 on the prongs of the Wilson underreamer body.

Q. 106. Please state what the co-operation of the cutters of Complainant's Exhibit Improved Double Underreamer and Cutters with the body of that exhibited will be with respect to the various stresses to which the cutters are subjected when the cutters are in expanded position and during the reaming operation?

A. The extended or broadened bearing faces at the lower ends of the parallel bearing faces of the improved Double underreamer body, projecting downwardly until they are interposed between the bodies of the two cutters, transfers the fulcrum or pivotal point to the backs of the bodies of the cutters. That pivotal point is the point at which the greatest stress is applied to the cutters in resisting

I. B. inward

~~the underreamer~~ strain on the cutting edges of the cutters. The upward strain or the endthrust is taken up at the upper ends of the dovetail ways which form the upper boundary of the hollow-slotted extension. The outward strains are taken up on the coacting dovetails of the underreamer cutters and the corresponding dovetails of the underreamer [117] body. The rotating strain applied to the cutters, which strain is caused by the principal force of the blow of the tools being applied at one side of the cutting edge of each of the cutters to a greater degree than happens to be applied to the opposite corner of the cutters, pro-

duces a rotating motion of the cutter within the dovetail, and which rotation is on an axis parallel to the axis of the reamer body. By the extended faces of the parallel bearing-faces of the Double underreamer body and the corresponding extensions of the cutter bodies forming shoulders which extend at right angles to the shank, this rotating strain is taken up on these shoulders at the backs of the cutters instead of on the dovetails only as was formerly done with the old style Double underreamer.

Q. 107. Now, what can you say as to the relative length of life and cutting efficiency or cutting range of the cutters of Complainant's Exhibit Improved Double Reamer and Cutters, with respect to the cutter being Complainant's Exhibit Old Style Double Reamer Cutter No. 1?

A. I have previously explained that the improved Double underreamer cutter having a wider body and a broader cutting surface naturally has more material in it which must be worn out before the cutter becomes useless, unless breakage should occur. The greater amount of material in the improved cutter is bound to prolong the life of the cutter to a greater degree than the narrow and small body of the old I. B. style Double underreamer cutter produced/in evidence/. In order to underream the whole sufficiently for the casting to follow, it was necessary for the underreamer cutters to enlarge the entire circumference of the hole. It is apparent at once that the broader the cutters, or, in other words, the greater the extent of the cutting edges of the under-

reamer cutters, the more of the circumference of the hole is reamed or cut at each stroke of the tools. The wider [118] cutter, of course, reams the hole faster and, furthermore, reams the hole more completely than was accomplished by the old style narrow cutters of the Double underreamer.

(By consent an adjournment is taken until tomorrow, March 25, 1914, at 10 o'clock a. m., at this same place.)

Wednesday, March 25, 1914,
10 o'clock a. m.

This being the time and place to which the taking of proofs in this cause was continued, the proceedings are now resumed.

Present: Raymond Ives Blakeslee, Esq., solicitor for complainant; Frederick S. Lyon, Esq., solicitor for defendant.

Mr. Blakeslee: Amplifying the notice for the taking of the testimony now in progress, which was originally given, it is to be noted that adjournments will be taken from time to time and from place to place as may be necessary to complete the proofs of complainant.

Elihu C. Wilson, complainant herein, recalled as a witness in his own behalf.

Direct Examination (Resumed).

(By Mr. Blakeslee.)

Q. 108. With regard to the cutters of Complainant's Exhibit Improved Double Reamer and Cutters, as to which you have testified that the bodies project beyond the sides or lines of extension of the

sides of the shanks of the cutters forming bearing surfaces, will you please state definitely where the other bearing surfaces on the body of these cutters as to which you have testified are located?

Mr. Lyon: The question is objected to on the ground [119] that it is leading.

A. The other bearing surfaces lie between those bearings which are on the backs of the shoulders of the cutter body and form a continuation of the bearings that are on the backs of the shoulders of the cutters.

Q. 109. (By Mr. Blakeslee.) Please state a little more fully what the actions of these several bearing surfaces are and what relation there is between or among them as to the operative effect produced?

A. The bearings practically unite to form one function of the underreamer cutter. With the exception of a groove planed in the back of the cutter and which groove is a vertical one and in line with the axis of the cutter, the bearings referred to are a single plane.

Q. 110. Does the provision of this bearing surface between two bearing surfaces on the shoulders of these cutters affect the action of the bearing surfaces on the shoulders with respect to their opposing the stresses you have testified about?

A. That is somewhat difficult to say. I should imagine that the groove which is planed vertically across this bearing surface referred to, may possibly better assist in transferring the strains which are resisted by the bearings on the shoulders of the cutters, which strains are applied during the rotating action or strain or are sometimes applied to the cutter as previously explained. By having this part of the

bearing removed there is a possibility that it would avoid a rocking or tilting action of the bearing and make a more substantial rest on the spreading-bearing of the reamer body.

Q. 111. Aside from any effect that groove may have, does the provision of the bearing surfaces which lie between the surfaces in the shoulders of each of these cutters affect in [120] any way the action of these bearing surfaces on the shoulders?

Mr. Lyon: The question is objected to on the ground that it is leading.

A. They carry a part of the same strain that is applied to the shoulders.

Q. 112. (By Mr. Blakeslee.) Now, assuming that the intermediate bearing surface, that is, the bearing surface between the bearing surfaces on the shoulders, were removed in these cutters, please state what would be the result with respect to the action of the surfaces on the shoulders?

A. It would throw all of the strain upon the shoulders and would cease to transfer a portion of the wear and a portion of the strain of the inward thrust of the cutters to the intermediate bearings referred to.

Q. 113. Would the resultant action of the bearing surfaces on the shoulders differ in nature or in degree or in both?

Mr. Lyon: The question is objected to on the ground that it is leading and suggestive.

A. It would not differ in nature; it would differ in degree possibly. The bearings at the back of the shoulders of the cutters would be obliged to take up all of the pressure due to the inward strain.

Q. 114. (By Mr. Blakeslee.) Taking these bearing surfaces on the shoulders of these Double cutters of this exhibit by themselves, and comparing them with the bearing surfaces on the shoulders of the cutters of Complainant's Exhibit Wilson Underreamer, please more particularly compare the actions of the same.

A. Their function is practically the same. The inward thrust of the cutter when in reaming position is taken up by the spreading-bearing that is interposed between the cutters, and this spreading-bearing, of course, comes in contact with those bearings at the apex of the shoulders of the cutters in both the Wilson [121] cutter and in the Double underreamer cutters of the improved type. There is a difference in the angularity of these shoulders, but, so far as taking up the inward thrust is concerned, and maintaining the cutters in expanded position with the spreading-bearings of the reamer body interposed between them, their functions are the same.

Q. 115. And how with respect to the resistance by these bearing surfaces of the inthrust stresses and the stresses tending to rotation of the cutters upon their longitudinal axes?

A. By the extension of the spreading-bearings of the back of the Double underreamer cutter, I mean the change which was made in the improved Double underreamer cutter over their old style cutter, whereby the body of the cutters were extended to from shoulders projecting at right angles to the shanks of the cutters. And by utilizing the backs of those shoulders as bearings to rest upon the spreading surfaces of the reamer body, the power to resist the rotating action of

the cutters on their vertical axes was greatly increased. It gives an added leverage to the cutter to offset that rotation, and does more; it throws the principal part of this force or rotating strain upon these projecting shoulders with their bearings at their backs, instead of throwing the strain chiefly upon the dovetail shoulders of the shanks, as is the case with the old style Double underreamer cutters. The Wilson underreamer cutter had that same advantage over I. B. the old style/Double/underreamer cutter, which made a stronger cutter than the old style Double underreamer cutter, and, at the same time, made a wider or broader cutter, increasing the cutting area. The change which Double effected in devising the improved Double underreamer cutter, now gives their improved Double underreamer cutter practically the same advantage in that respect that we claim for the Wilson cutter. [122]

Q. 116. In the cutters of Complainant's Exhibit Wilson underreamer, do you find any shoulder such as you have testified you find in the cutters of the Double underreamer at the back of the cutter or extending across the back of the cutter, which participates in the expanding action of the cutter?

Mr. Lyon: The question is objected to on the ground that it is leading.

A. Yes, sir; I do. The Wilson underreamer cutters, as previously explained, have shoulders which extend at right angles to the shanks, the backs of which shoulders are provided with bearings, which bearings rest upon the coacting spreading-bearing or bearings of the reamer body.

Q. 117. (By Mr. Blakeslee.) Do you find any shoulder part on the cutters of Complainant's Exhibit Wilson Underreamer between the shoulders you have just referred to?

Mr. Lyon: The question is objected to on the ground that it is leading.

A. No, sir; there are none.

Q. 118. (By Mr. Blakeslee.) Now, as to the groove which you have testified to finding in the cutters of Complainant's Exhibit Improved Double Reamer and Cutters, such groove extending lengthwise of the cutter, and being produced through the bearing surfaces, what effect does that have upon the continuity of the bearing surfaces of these cutters?

A. It divides the otherwise single plane into two separate bearings.

Q. 119. Do you find any such groove in the bearing surfaces of the cutter, being Complainant's Exhibit Old Style Double Reamer Cutter No. 1?

A. I do not.

Q. 120. Now, referring to both the old style and improved Double underreamers, as you are acquainted with the same [123] on the market and in the field, briefly state what means are employed for causing the expansion of the cutters in co-operation with the spreading surfaces?

Mr. Lyon: The question is objected to on the ground that it is immaterial in this action, inasmuch as complainant has elected to stand on claims 16 and 17 of Complainant's Exhibit Wilson Patent, which said claims are specifically for an underreamer cutter as an article of manufacture irrespective of other parts

of the underreamer. This objection will be understood as taken and repeated to all questions asked and answers given by this witness which refer to the parts of the reamer other than the cutters *per se*, and will also be understood as taken and repeated to each question asked and answer given by any other witness called on behalf of complainant in this case, without the necessity of hereafter repeating the objection in the record.

Mr. Blakeslee: We object to counsel placing an arbitrary construction upon the specific claims which have been elected for the purpose of proving infringement in this case. And, if counsel insists upon his objection to the determination of any other structural features of the Double reamers, we will ask him if he will at this time stipulate in the spirit of that objection that in the Double reamers of both old type and improved type means are provided and have at all times been provided for causing the expansion of the cutters in connection with the spreading surfaces when the reamers reached the zone of operation or work in the hole. If counsel will so stipulate we will not press that inquiry any farther.

Mr. Lyon: I am not trying this case on behalf of complainant. I stand upon the objection that in view of the election of complainant, so far as the question of infringement is concerned, the form and shape and construction of the cutters are the only things included within either claim 16 or claim 17 of the Wilson patent in suit. [124]

Mr. Blakeslee: The claims speak for themselves, taken in connection with the rest of the patent in suit.

And we will now ask the witness to answer the last question.

A. The cutters are expanded by the upward movement of them produced by the tension of a spring, and which upward movement draws them upwardly over tapered faces of the hollow-slotted extension of the Double underreamer body, to such a position that the bearing surfaces on the backs of the shoulders of the Double underreamer cutters rest upon the parallel bearing faces of the hollow-slotted extension of the reamer body.

Q. 121. (By Mr. Blakeslee.) And when bearing faces of the cutters of the Double underreamers are in contact with the parallel faces of the hollow-slotted extension, are the lateral bearing faces on the extended shoulders in the improved Double underreamer, as exemplified by Complainant's Exhibit Improved Double Reamer and Cutters, in contact with the parallel faces of the hollow-slotted extension?

Mr. Lyon: The question is objected to on the ground that it is leading.

A. They are.

Q. 122. (By Mr. Blakeslee.) When the cutters of the improved Double reamer are in expanded position, please compare the action of the bearing surfaces upon the lateral shoulders of the cutters of the improved Double underreamer with the action of the bearing surfaces upon the shoulders of the cutters of Complainant's Exhibit Wilson Underreamer.

Mr. Lyon: The question is objected to as incompetent, irrelevant and immaterial to any of the issues in this case. The claims upon which complainant rests

his claim of infringement being limited to the cutters or bits as an article of manufacture, and such claims cannot be in any manner limited by the device with which such article of manufacture is used or the manner of such [125] use, the claims not being combination claims but being claims of an article of manufacture.

Mr. Blakeslee: The patent in suit is for an underreamer and we have been particular to reserve as to our charge of infringement the subjects of claim 16 and 17 read in connection with all of the other parts of the patent in suit. The patent is for a machine, in contradistinction to an article of manufacture, in accordance with the clear distinction made in the revised statutes, and we contend and shall contend that claims 16 and 17 are for parts of such machine to be considered in all of their operative relations and functions.

Mr. Lyon: I think counsel understands my objection and it is not proper or necessary to argue it at this stage.

A. When the cutters are fully expanded and up into reaming position, the action of those bearings at the backs of the shoulders of the Double Improved underreamer cutter and those bearings at the back of the shoulders of the Wilson underreamer cutters are precisely the same. Both resist the inward strain applied to the ends of the cutters, and both rest against the spreading-bearing of the reamer body. Both resist the rotating action of the cutters, which rotation is on a vertical axis, which axis is parallel with the axis of the reamer body, and both take up that rotating action, thereby relieving the dovetail of the cutters and corre-

sponding dovetails or grooves of the reamer bodies of that rotating strain.

Q. 123. (By Mr. Blakeslee.) In both the old and improved types of the Double underreamers when the bearing faces upon the cutters move over the parallel sides of the hollow-slotted extensions, please state whether or not any expansion of the cutters is caused solely by this engagement of the spreading surfaces on the cutters with such parallel faces?

A. There is not."

Taking up again the general question of infringement here, it is of course clearly established that infringement may be found, although the infringing device does not obtain the advantages of the patented invention to the fullest extent. A recent and high authority for this is the opinion of the learned Circuit Judge Lacombe, rendered in the Circuit Court of Appeals, Second Circuit, January 11, 1916, *In re Telescope Cot Bed Co. v. Gold Medal Camp Furniture Mfg. Co.*, 229 Fed. 1002, at page 1004. In this case the court said:

"Infringement seems too clear for discussion. In the Jerman cot the slots are in the braces and the pins are on the brackets connected to the legs. In defendant's cot the slots are in the brackets and the pins are on the braces. It is wholly immaterial on which parts of the combination the slots and pins are respectively located so long as they function alike in both structures; this they do because defendant's slots in the brackets are so located that the play of the pins therein is in the same direction as the length of the braces. The amount of this longitudinal play is slightly less in defendant's

structure because the slots are somewhat shorter, but they are long enough to secure a substantial longitudinal play. *Infringement may be found, although the infringing device does not obtain the advantages of an invention to the fullest extent.*

The decree is affirmed, with costs."

Likewise, of course, the inventor is entitled to the exercise of the monopoly of his patent, to prevent infringement, with the consequent enjoyment of any of the advantages flowing from the use of his invention, irrespective of whether (as most of them were in the patent in suit) such advantages be recited in the patent or known to the inventor at the time he filed his application. On this head attention is invited to the recent decision of the Circuit Court of Appeals of the Third Circuit, opinion by Circuit Judge McPherson, in *Gear et al. v. Fairmount Electric & Mfg. Co. et al.*, 231 Federal Reporter, p. 728, in which it was said that the fact that the specification and claims of a patent do not refer to all of the advantages of the invention is not material. The patentee is entitled to the benefit of such advantages, although he may not have mentioned or known of them. On that head the opinion states:

"It is true that the specification and the claims do not refer to all the advantages that seem to accompany the device, but this is not material. If a specification or a claim be sufficient in itself, it need not be all-embracing. It will still be good as far as it goes; and, if it does not go as far as it might have gone, that is the inventor's affair. The evidence before us seems to prove satisfactorily that one advantage of the Williams device

is the facility it affords for narrowing the area of search whenever 'trouble' occurs in an electric circuit; and another advantage is the more effective protection it affords to men busy with repair or inspection. It is readily installed, is harmless if accidentally touched, and can be easily and safely connected and disconnected without the use of tools. The inventor is entitled to reap the benefits of these advantages, although he may not have mentioned them, or even known of them, provided they come to light in operating the device actually described and claimed. The present invention may be narrow—an improvement, rather than a primary thought—but the presumption of validity exists, and the record is unusually bare of evidence to attack it. At the best, the defendants have done no more than raise a doubt concerning the existence of inventive quality, and we think the scale is turned in favor of the patent by the undisputed evidence in reference to its merits and extensive use."

Defendant will insist that because it has not used every attribute of the Wilson invention, it possibly should be excused from infringement because, as it may contend, it did not use the full life-giving principle of such invention. In this connection we called Your Honors' attention to the case of Parker v. Automatic Machine Co., 227 F. R., and particularly to page 452 thereof as pointing the fallacy of any such contention, namely, that the collapshion of the cutters between the prongs is the *essential* or *sine qua non* feature of the Wilson invention. In this case counsel for appellat here was counsel for defendant, and the Honorable Judge Van Fleet of the Northern District of California

found against such contentions, and that it is sufficient if the infringer uses any claimed portion of the invention. We quote from such last identified opinion as follows:

“Defendant’s contention is, in fact, that the so-called ‘elevator’ feature of plaintiff’s device is its ‘life-giving principle,’ and is so essential to the successful operation of the entire combination of correlated parts that without it the machine is not workable, and that consequently ‘there can be no infringement of the Parker patent by any machine which does not employ the same principle of action, to-wit, the elevator principle.’ In this I am unable to accept defendant’s view, but am satisfied that he greatly magnifies the functional value of that element in its relation to the other features of the combination. As I regard it, this feature of the feed mechanism of plaintiff’s device is in no wise essential to its life; nor do the terms of the patent make it so. Any other means of an equivalent nature may be substituted for it and still be within the patent;—”

The concrete issue at bar must be considered, plainly and sensibly, as stated in Walker on Patents, at the end of section 346, 4th edition, page 304, as follows:

“Harmoniously with its decision in *Burr v. Duryee*, the Supreme Court has since had a positive tendency to disregard whatever is abstract and intangible in questions of infringement, and to base its conclusions upon the concrete features of the issues at bar.”

The following authorities to the effect that the patentee is entitled to all the beneficial uses to which his invention can be put, irrespective of his statement

of recognition of the same in his patent specification, bear pointedly upon the case at bar. They go to show how effectively and extensively defendant has taken of the *substance and gist of the Wilson invention*, irrespective of its non-use of the single feature of close collap- sion of the cutters between the prongs. As said in the recent case of *Jackson Fence Co. v. Peerless Wireless Fence Co.*, 228 Fed. 691, at p. 692, syllabus 4:

“A patentee is entitled to the benefit of every function within the scope of the claims and actually possessed by his mechanism, even if he does not know of it at the time of patenting, and it is not necessary that he should enumerate its advantages.”

This is a decision of the Circuit Court of Appeals of the Sixth Circuit, rendered December 7, 1915.

In like vein it is also said as follows in the following authorities:

“A patentee is entitled to all the beneficial uses to which his invention can be put and in order to hold an infringer it is not necessary that he should indicate every use in his statement of the objects of his invention.”

Scott et al. v. Fisher Knitting Mach. Co. et al.,
145 F. 915, 918 (2nd Cir. 1906).

“Where the practical use of an invention dis- closes advantages residing therein which are dif- ferent from the one chiefly in the patentee’s mind, the invention will not on that account fail, if there be to the conception actual advantage, and the structure embodying it evinces patentable inven- tion; for a patentee is entitled, not only to what

he specifically sees, but to what has been brought about by the invention, even though at the time not actually seen.” (Annotated.)

Kuhlman Electric Co. v. General Electric Co.,
147 F. 709, 712 (7th Cir. 1906).

“It is not necessary for a patentee to describe in detail all the beneficial functions which he claims will result from his invention; but it is enough if such functions are evident and obviously contribute to the success of the invention, and they may in such case properly be taken into account, in estimating its novelty and utility. (Decree 146 F. 552 reversed.)”

General Electric Co. v. Bullock Electric Mfg.
Co. *et al.*, 152 F. 427 (6th Cir. 1907).

“Where a patented structure in fact contains a new mode of operation and produces new results, the failure of the patent to state these merits does not prohibit the court from taking them into consideration in determining the question of patentable novelty, nor does it limit the scope of the invention; but the patentee is entitled to the benefit of all of the advantages which such structure possesses over prior structures intended for a similar purpose.”

Warren Steam Pump Co. v. Blake & Knowles
Steam Pump Works, 163 F. 263 (1st Cir.
1908).

“That a particular advantage of a patented device was not claimed or mentioned in the specification will not exclude it from the scope of the patent if it was necessarily achieved by the inven-

tion. (For other cases, see Patents, Cent. Dig., Sec. 243; Dec. Dig., Sec. 167.)”

Kellogg Switchboard & Supply Co. v. Dean Electric Co. *et al.*, 182 F. 991, 998.

“A patentee who has sufficiently described and distinctly claimed his invention is entitled to every use to which his device can be applied, whether he perceived or was aware of all such uses at the time he secured his patent or not. (For other cases, see Patents, Cent. Dig., Sec. 263; Dec. Dig., Sec. 185.)”

Acme Truck & Tool Co. v. Meredith, 183 F. 124.

“A patentee is entitled to the advantages which are inherent in his construction, if such construction is clearly disclosed, although such advantages may not be specifically mentioned in his description or claims. (See Patents, Cent. Dig., Sec. 241; Dec. Dig., Sec. 165.)”

E. H. Angle Regulating Appliance Co. *et al.* v. Alderer, 171 F. 93, 95.

“A patentee is entitled to have his patent considered with reference to an advantage over the prior art necessarily secured by the operation of the device as described, even though such advantage is not specifically claimed or fully set forth in the specification. (For other cases, see Patents, Cent. Dig., Sec. 241; Dec. Dig., Sec. 165.)”

Morgan Engineering Co. v. Alliance Mach. Co., 176 F. 100.

“The fact that an applicant did not recognize or appreciate the real function of his device when he filed his application is no reason for refusing to

give him the benefit of the functions which are actually present in his device where the claims cover his construction.”

Weber Electric Co. v. National Gas & Electric Fixture Co., 204 F. 79, 93.

“An inventor is entitled to all that his patent fairly covers, even though the complete capacity is not recited in the specification and was unknown to him prior to the patent issuing. (For other cases, see Patents Cent. Dig., Sec. 243; Dec. Dig., Sec. 167.)”

Stromberg Motor Devices Co. v. John A. Bender Co., 212 F. 419.

“A patentee is entitled to all uses and properties of his discovery, whether known or disclosed or not. (For other cases, see Patents, Cent. Dig., Sec. 241; Dec. Dig., Sec. 165.)”

Hoskins Mfg. Co. v. General Electric Co., 212 F. 422, 430.

“If appellee’s patent was the first to provide a lever operated gear for a wash tub which reduced the weight of the lid to a negligible quantity, he made such an addition to that art as amounted to invention. It was not necessary that he should have claimed it (the advantage or principle) in specific terms if the device itself disclosed it. (Diamond Rubber Co. v. Consolidated Rubber Tire Co., 220 U. S. 428, 31 Sup. Ct. 444, 55 L. Ed. 527; Kuhlman Electric Co. v. General Electric Co., 147 F. 712).”

Horton Mfg. Co. v. White Lily Mfg. Co., 213 F. 471, 475.

All of this pertains particularly to the various advantages attaching to the use of complainant's invention in defendant's infringing devices, with respect to the interengaging lateral shoulders on the cutters and the spreading-bearings 9 on the lugs 2', the use of the detachable safety bolt 11, either with or without the block, and the ability to assemble the underreamers of the Type "F" construction at the bottom because of the gap or cavity at the bottom of that reamer, and the ability to remachine that reamer when worn. Likewise these authorities are pertinent in respect to all the advantages to be obtained from the use of the broadened cutters and extending cutting zones thereof and like factors, and the prevention of rotatory action causing breaking off or disruption or bending or distortion of the shoulders 2'' constituting the ways 3, and so on through the whole gamut of advantages incident to the adoption by defendant of complainant's invention.

Counsel for defendant in a certain brief filed by him in said companion case pertinent to infringement by complainant's corporation of Defendant's Exhibit Double Patent No. 1, contained certain references to authorities used in that case by counsel in his endeavors to obtain an enlargement of the really limited and specific language of the claims of said Double patent. These citations we quote from as being most applicable for complainant in this case, particularly if they ever could have been applicable for the complainants in said companion case. Such quotation from counsel's said brief is as follows:

“Judge Nelson in *Tatham v. Le Roy*, (2 Blatchf. 486) says:

“Formal changes are nothing,—mere mechanical changes are nothing; all these may be made outside of the description to be found in the patent, and yet the machine, after it had been thus changed in its construction, is still the machine of the patentee, because it contains his invention, the fruits of his mind, and embodies the discovery which he has brought into existence and put into practical operation.”

“As said in *Eck v. Kutz*, 152 Fed. 758:

“The question is whether the inventive idea expressed in the patent has been appropriated; and, if it has, infringement has been made out.”

“As said by the Supreme Court in *Hobbs v. Beach*, 180 U. S. 383;

“If there be one central controlling purpose deducible from all these decisions, and many more that might be quoted, it is the steadfast determination of the court to protect and reward the man who has done something which has actually advanced the condition of mankind, something by which the work of the world is done better and more expeditiously than it was before.”

“The object of the patent law is to secure to inventors a monopoly of what they have actually invented or discovered, and it ought not to be defeated by a too strict and technical adherence to the letter of the statute or by the application of artificial rules of interpretation.”

“*Topliff v. Topliff*, 145 U. S.”

“McLain v. Ortmyer, 141 U. S. 425;

“In a case of doubt, where the claim is fairly susceptible of two constructions, that one will be adopted which will reserve to the patentee the actual invention.”

“Stebler v. Riverside Heights Assn., 205 Fed. 735;

“While the invention is not basic or primary, it is substantial and important, and therefore entitled to a fair range of equivalents.”

There is a particular point to be borne in mind in contemplating this question of infringement in the case at bar, particularly with respect to the term “prongs” as used in the claims found to be infringed, and that is, *that aside from the three aspects in which such prongs are to be considered in construing the patent in suit (as in the three cases postulated above) the very specific pronged construction or bifurcated construction of the body or formation of the body at its lower end with separated spaced forks or furcations, was, in said companion suit, supra, found, and the opinion in that case in 237 Fed. shows that such construction was found, to be the equivalent of the “hollow slotted extension” construction of the underreamer of Defendant’s Exhibit Double Patent No. 1, which was the patent in suit in said companion case. This is res adjudicata, and the doctrine of stare decisis will, of course, obtain until such time and in the event that this Honorable Court shall be moved to reverse the decree in said companion case with a different finding. But it is not necessary even to invoke the findings of the trial court in that case in order to make out such equivalence in the case*

at bar, because in the case at bar *Wilson stands at the head of the class or family or order of practicable and successful underreamers having "prongs" or a lower end formation provided with "prongs" having any one of the three functions postulated in the three cases supra*—that is, having the function of permitting close cutter collapsion between such "prongs" because of their spaced relation; or, second, permitting complete assembling and disassembling of the cutters and other features of the reamer at the bottom of the reamer because of the cavity between the "prongs"; or, third, acting as carrying or connecting or supporting members for the lugs having the spreading bearings for co-acting and co-operating with the lateral shoulders on the cutters, and likewise and at the same time acting as carrying or connecting members for the shoulders forming the ways which co-act with other shoulders on the cutters or the shanks thereof. Therefore Wilson is entitled to a broad interpretation of his patent in this case, with respect to the lower body and cutter aspects and the co-operating cutters and other parts, and all the features thereof, and it should not require any artificial rule of interpretation or any benevolent application of the doctrine of equivalence to find infringement in this case, but the rule of broad interpretation should be applied, and, as said in *Stebler v. Riverside Heights etc. Co. et al.*, 205 Fed. 735, 740:

"The language of these claims is not, as argued by the defendants, to receive a narrow, literal construction. While the invention is not basic or primary, it is substantial and important, and is therefore entitled to a fair range of equivalence."
(Citing Paper Bag Case, 210 U. S. 405.)

In considering these several claims of the patent the possibly specific claiming of the cutters in claims 16 and 17, and the propriety of complainant dividing his claims up into combination and sub-combination or “part” claims, this is warranted by the following language from sections 116 and 117 of Walker on Patents, 4th edition, as follows:

“It is a proper practice to make a generic claim and also a specific claim, in an application for a patent on a generic invention, even where only one species is described in the specification. In such a case, if the inventor’s understanding that his invention is primary, turns out to be true, both claims will be valid. But if some invention is afterward discovered in the prior art, which relegates the patent to a secondary place, the specific claim may stand and be valid, though the generic claim is too broad to be maintained. * * *

“The proper practice is to fix upon the new parts, or new combinations, which the described machine contains, and to make a separate claim for each of those parts, and for each of those combinations. * * *

“To secure a particular part of a machine, a claim must specify that part; and to secure a particular combination of some of the parts of a machine, a claim must specify all of those parts, and the description must explain their joint mode of operation, and must state their joint function.

“And a part or a combination may be claimed separately, though it cannot do useful work separately from the residue of the machine or apparatus of which it constitutes a part. Otherwise an infringer might take the most important part of an invention, and by changing the method of

adapting it to its environment, might avoid any charge of infringement. The invention of a needle with an eye near the point is the one essential element of all sewing machines. But the possible mechanisms for operating such a needle are many, and if its inventor had been obliged to make his own mechanism a part of every claim in which his needle was an element, his patent would have been destitute of value to him; though his invention was one of the most valuable in the history of mankind.”

As a matter of fact, when a fair and proper interpretation of the term “prongs” (bearing in mind the explanation of the functions and relations thereof which have been hereinabove made, and bearing in mind that as cited from the authorities above, mere terms and names do not count, but rather functions and performances), the claims found infringed, as we contend do others found valid but not infringed, even *read directly upon the infringing structures*. In this connection it was said in *Rollman Mfg. Co. v. Universal Hardware Works*, 207 Fed., page 99:

“The complainant contends that the claims upon which this suit is based are to be construed as broadly as they read, and, if so, include the horizontal position of the frame and horizontal action of the plunger and knife.”

We further quote from the same authority:

(Syl.) “Where a limitation expressly stated in some of the claims of a patent is omitted from others, it cannot be read into them to avoid a charge of infringement.”

(Syl.) “It is proper for an applicant for a patent to point out in his specification the preferred method of operation of his machine, *but, in the absence of any expression in his claims making such details elements therein, they are not limited thereby.*”

Also on page 98 *et seq.*:

“The complainant’s cherry seeder is constructed in accordance with the drawings accompanying the patent in suit. *The defendant’s machine is admitted to possess all of the elements covered by these claims.* In construction, however, the machines differ in that the complainant’s plunger is made to reciprocate by means of a spring, while that of the defendant reciprocates by means of a crank and cam. The remaining difference between the two machines is that in the complainant’s machine the frame in which the plunger and knife reciprocate is *constructed at an incline to the vertical of about 30 degrees, while that of the defendant’s machine is constructed horizontally.*

“*The complainant contends that the claims upon which the suit is based are to be construed as broadly as they read and, if so, include the horizontal position of the frame and horizontal action of the plunger and knife.*

“For example, as pointed out by complainant’s counsel, claim 3 is limited to ‘a machine comprising an inclined U-shaped standard, a plunger reciprocatingly mounted in said standard and disposed in the same plane of inclination therewith,’ while the claims in suit call for a frame or *standard irrespective of its inclination.*

“Under the ordinary rule of interpretation, the limitation which is expressed in claim 3 and in the

specification cannot be read into claims 8, 9, 10 and 13.”

‘Where a patent contains specific claims for the one form of structure described in the specification and shown in the drawing and also broad and general claims, the latter are not to be so limited as to make them a mere repetition of the specific claims.’ *General Electric Co. v. E. H. Freeman Electric Co.* (C. C.), 190 Fed. 34.

‘Where a limitation expressly in some of the claims of a patent is omitted from others, it cannot be read into them to avoid a charge of infringement.’ *Diamond Match Co. v. Ruby Match Co.* (C. C.), 127 Fed. 341; *Boyer v. Keller Tool Co.*, 127 Fed. 130, 62 C. C. A. 244; *Ryder v. Schlichter*, 126 Fed. 487, 61 C. C. A. 469; *Wilson v. McCormick Co.*, 92 Fed. 167, 34 C. C. A. 280; *Metallic Extraction Co. v. Brown*, 110 Fed. 665, 49 C. C. A. 147.

“As to the defendant’s contention that the claims of the patent are no broader than the details of the patentee’s preferred construction described in the specification, it is difficult to see upon what ground this proposition is based. In order to comply with section 4888 of the Revised Statutes (U. S. Comp. St. 1901, p. 3383), it was necessary that in his specification the applicant should explain the principle thereof and the best mode in which he contemplated applying that principle, and it was therefore prudent, if not necessary, for him to point out some practical preferred method for the operation of the machine, *but, in the absence of any expression in his claim making the details thus pointed out an element therein, they would not under the ordinary rules be limited*

thereby. Eastern Paper Bag Co. v. Continental Paper Bag Co.. (C. C.), 142 Fed. 479.

“The device of the oblique stripper plate, so far as appears, was not present in prior patent devices. Hence the prior art neither limits nor invalidates the claims in suit. Unless the claims of the patent in suit are limited, as contended by the defendant’s expert, to a standard inclined to the vertical at less than a right angle, the defendant under the doctrine of equivalents has infringed. ‘The functional importance of great value,’ which the patentee described in his specification for the inclination of the standard, consists in the fact that the inclination of the standard carries the stripper plate to a point at or beyond a perpendicular drawn from the outward edge of the hopper. This function would obviously be obtained in a degree proportionate to the extent of the inclination of the standard from the perpendicular. It is obvious, therefore, that when the standard operates horizontally, as in defendant’s machine, it is a mere modification or equivalent of the arrangement of the standard described in the specification of the patent. That the functions of the defendant’s construction and that of the patented machine are identical in causing the pulp, in coming in contact with the obliquely disposed stripper plate, to be laterally thrown outside of the hopper, and that there is substantial identity of way of performing the function, is too apparent to require elaboration. It is clearly demonstrated in my opinion that the difference in the way of performing the function is a mere difference in mechanical construction, and that the defendant’s construction is a color-

able change in form of the construction of the complainant. As evidence of prior art cannot be invoked to invalidate the patent, it must be held as to this defendant that the patent in suit is valid and the defendant has infringed.”

The proper method of construing the claims of the Wilson patent is set forth as follows in the recent decision of Hess-Bright Mfg. Co. v. Fichtel *et al.*, 219 Fed., at page 729 (C. C. A.), as follows:

“Such being the case, it follows that the claims granted should receive the construction their language naturally imports (Dodge Needle Co. v. Jones (C. C.), 153 Fed. 189, and 159 Fed. 715, 86 C. C. A. 191), and that no statement or action of the patentee in obtaining his patent estops him from claiming to the full extent what his claims on their face purport.”

How were claims 9 and 19, which were found infringed, ever in any manner, either by action of the Patent Office, or by acquiescence of the patentee, (and certainly not by the prior art), limited to any specific “prong” construction or to any specific “shoulder” construction, or in any other structural particular? The File Wrapper and Contents of the Wilson patent commencing on R. p. 1023 gives a negation to any such charge or suggestion. The amendments made to claim 9 were merely in elaboration of the subject-matter, or to produce greater fullness of statement, and no amendment whatsoever was made to claim 19. The claims read broad and are broad—they are broad combination claims. And they read in all fairness upon the

defendant's reamers. The breadth of these claims is not to be disturbed by any restriction of the broad import in the patent of the term "prongs." *The equivalency* in all respects is *res adjudicata* in the companion case, tried with this case, even if that need be relied upon, *in view of the big stride taken in the art by Wilson and conceded by defendant by its use of the substance thereof.*

Also we quote from *National Tube Co. v. Mark et al.*, 216 Fed. 507, a decision of the Circuit Court of Appeals of the Sixth Circuit, as follows:

(Syl.) "Where a patent contains both a broad and a narrow claim and suit is brought on the broad claim, the court cannot construe into it a limitation not therein expressed, but which is expressed in the narrower claim, and by which alone one is distinguished from the other."

(Syl.) "It is not necessarily important that when the examiner rejects a claim in an application for a patent on a reference to an earlier patent, the applicant thereupon amends the claim, but it is of importance and creates an estoppel against

the patentee only when it additionally appears that the effect of the amendment was to narrow the claim.”

Also on page 514 *et seq.*:

“We find nothing upon the face of the patent requiring the claim to be limited to rolls which had these flanges attached to and integral with the rolls. It is true that neither by drawing nor specification does Fell suggest the performance of this function by stationary parts of the frame, but this is not necessary. In the absence of something clearly showing that the patentee did intend to have his grant confined to a specific form, a broad and generic claim may rightfully stand on a mere specific disclosure; and the invalidity of such a claim (if it is invalid) will result, not from the applicant’s failure to use more sweeping language in his specification, but from the state of the art limiting the actual invention. *The claims are part of the description required by statute, and in them, and not in that part of the description which is now commonly called ‘specification,’ is the proper place in which to define the breadth of the invention, as was most accurately apprehended by Fell’s solicitor when he (though quite unnecessarily) said that various changes might be made ‘without departing from my invention as defined by the appended claims.’*”

And on page 521 further particularly as to claims 16 and 17 not found infringed, and any limitations proper as to them, but not as to the other claims:

“Where a patent contains both a broad and a narrow claim and suit is brought on the broad claim, we cannot construe into it a limitation not

therein expressed, but which is expressed in the narrower claim and by which alone one is distinguished from the other. To do so would be making over the contract between the public and the patentee. *Bresnahan v. Tripp Co.* (C. C. A. 1) 102 Fed. 899, 900, 43 C. C. A. 48; *O'Rourke Co. v. McMullen* (C. C. A. 2), 160 Fed. 933, 939, 940, 88 C. C. A. 115; *National Co. v. American Co.* (C. C. A. 3), 53 Fed. 367, 370, 3 C. C. A. 559; *Lamson v. Hillman* (C. C. A. 7), 123 F. 416, 419, 59 C. C. A. 510; *Mast, Foos & Co. v. Dempster Co.* (C. C. A. 8), 82 Fed. 327, 333, 27 C. C. A. 191; *Duncan v. Cincinnati Co.* (C. C. A. 6), 171 Fed. 656, 663, 96 C. C. A. 400; *Sheffield Co. v. D'Arcy* (C. C. A. 6)."

Also on page 523:

"Our review of these patent office proceedings satisfies us that they furnish no support for the theory of such limitation as will avoid infringement of claims 1, 2 and 3; their whole tendency is in the contrary direction."

We also quote from *Ryder et al. v. Lacey*; 220 Fed. Rep., page 966, as follows:

(Syl.) "Unless a patentee has especially limited himself to a specific form of construction, or such limitation is imposed by the prior art or by the action of the patent office, acquiesced in by him, he is entitled to a broad construction of his claims *in accordance with the language thereof.*"

The broad language of claims 9 and 19 does not permit of limitation of the term "prongs" to *any one* of the three senses or cases herein defined; nor limit the kinds of "shoulders" on the cutters.

Also on page 967:

“The defendant’s structure is plainly *within the broad language* of claim 4 of the Harder patent.”

Also on page 968:

“Harder’s reinforcing strip, as shown, extended from top to bottom; but he did not so limit himself, and a construction which has; (1) A continuous opening from top to bottom; (2) braces between the edges of the walls forming the opening; (3) door sections for receiving sections of doors by which the opening is or may be closed; and (4) reinforcing strips for such door sections whether structurally applied to the walls of the silo perpendicularly or horizontally, and whether applied independently or in combination with the braces and forming a part thereof—infringes the Harder patent as I understand and construe it. These braces and reinforcing strips may be constructed of many shapes and applied in various ways.”

Also on page 969:

“The first, second and third claims of the Harder patent relate to the special and specific construction mentioned in the specifications and to the special form of brace, but the fourth claim in issue here is not so limited.”

Also on page 970 *et seq.*:

“It is evident, I think, that, by departing from the structure alleged to have been erected by Johnson and Allen, Lacey has adopted the idea and construction embodied in the patent to Harder.” * * * “In view of the adjudications and crude state of the art at the time Harder came into the field, and of the fact that Lacey has abandoned the old so-called Allen construction,

conceding it to be accurately described in the answering papers, and of the great importance of the art to the agricultural interests, and hence value of the patent to the inventor, I am constrained to grant the injunction prayed for." * * * "Unless a patentee has especially limited himself to a specific form of construction, or such limitation is imposed by the state of the prior art, or such limitation was imposed by the action of the patent office in rejecting a broad claim and the substitution and acceptance of a narrower claim by the applicant, *he is entitled to a broad construction of his claims in accordance with the language thereof.*"

Also, we quote from *Bernz v. Schaefer et al.*, 205 Fed. 49, as follows:

(Syl.) "Where the claim of a patent on which a suit is based omits a feature which is contained in other claims not in suit, it cannot be construed as covering such feature, but it must be presumed that it was intentionally differentiated."

Also on page 51:

"In our opinion, the special office of the second and third claims was to secure combinations containing the pivoted pitman and the pitman-rod described in the specification and omitted from the first claim, and the fact that these claims were added is a very persuasive argument that the additional elements they protect were not secured by the first claim. Any construction which would read into the first claim these additional elements rendered it useless and unmeaning, because it gives it the same effect as the claims which follow it, and in this way shows that neither the patentee nor the patent office contemplated such an interpretation.'"

Also on page 52:

“There is nothing upon this record which would warrant us in attributing to the patentee the folly of having presented, and to the patent office the improvidence of having allowed, two claims for the same thing. The distinction between them must be maintained, that both may be given effect.’”

Also, from *Hall Mammoth Incubator Co. v. Teabout*, 205 Fed. 906, as follows, quoting from page 912:

“Unless there are limitations written into the claim or *imposed by the prior art, or by the acceptance of a narrow claim in place of a broad one, in the patent office, in order to secure the patent, the inventor is entitled to every form in which his invention may be copied and to a broad construction.*”

Under section 4888, U. S. R. S., we must determine in looking for infringement whether what the claim *calls for* is found in defendant's structure, that section requiring that the inventor point out in the claims the part, improvement or combination which constitutes his invention; and, of course, we must determine whether the defendant's device is the same kind of device, that is, performs the same functions, in substantially the same manner or in analogous or suitably equivalent manner. It will not avail defendant to draw specific distinctions as between the upwardly and inwardly directed shoulders upon the inner faces of the “prongs” in the defendant's reamers, and the upwardly directed parallel shoulders on the “prongs” of the Wilson patented reamer, nor will it avail defendant to try to limit “prongs” and “shoulders” in broad combi-

nation claims 9 and 19 to *any one specific* meaning or form in the descriptive part of the patent, where the *gist* of the claim reads on defendant's structures. The defendant has taken of the substance of the invention, and, as said in Walker on Patents, section 350, page 308, 4th edition:

“The doctrine of equivalents *may be invoked by any patentee*, whether he claimed equivalents in his claim, or described any in his specification, or omitted to do either or both of those things. The patentee, having described his invention and shown its principles, and claimed it in that form which most perfectly embodies it, is, in contemplation of law, deemed to claim every form in which his invention may be copied, unless he manifests an intention to disclaim some of these forms.” (Citing many cases.)

Where the *principle* of the invention is taken, changes of form will not avoid infringement, unless the form is the distinguishing characteristics of the invention and that cannot be said to be true in any sense with respect to the combinations of complainant's patent appropriated by defendant.

See Wayne Mfg. Co. v. Benbow-Brammer Mfg. Co., 168 Fed. 261 (C. C. A.).

It is of no avail to defendant to say that cutters in underreamers were old, or that it, in and by its Double patent, had a reamer body with shoulders forming ways which co-operated with other shoulders on shanks of cutters. That fragment of the combination was not Wilson's invention. Other parts and fragments of his combination claims *were* his invention. It is our con-

tention these have been appropriated by defendant and his appropriation of the subjects of the combination claims 9 and 19 found infringed is of course not removed from the field of infringement because of the prior existence of *certain* of the features of these combinations. As we have seen in *Yesbera v. Hardesty*, 166 Fed. 120-125, *supra*, the law looks to the combination claim as an entity, and not to its respective parts, in considerations of novelty and invention. *Most* of complainant's patented features such as the prongs in their separated spaced relation, the lugs with their spreading bearings at the lower ends of the "prongs," or body extension, the lateral shoulders upon the cutters with their bearing faces, the detachable crosspiece or safety bolt, the detachable means forming a seat for the lower end of the spring, and the like, *were* features novel with the Wilson invention, and, under the sanction of the authorities, as we have seen, as in *Wright Co. v. Herring-Curtiss Co.*, 204 Fed., *supra*, are separately and subjunctively claimed. "Prongs" is merely a term, like "fork," for designating the extension of the body at its lower end. The Wilson patent is not, in the claims, limited to mere shape. We do not seek to re-form the claims. The defendant rather seeks to evade them.

Even applying the harsh rule of measuring the defendant's devices by the very wording of the claims does not allow defendant to escape. Counsel for defendant would make out that all we would need to do would be to compare the specification and drawing of the patent with the defendant's structures, and then immediately resort to

the doctrine of equivalents. Clearly if the patent claims the invention and the defendant runs also against the inhibition of the claims in their proper interpretation, it infringes. As was said in *Ferry-Hallock Co. v. Hallock*, 142 Fed. 172, where the whole substance of an invention—that which entitled the inventor to a patent—may be copied—may be copied in a different form, it is the duty of the courts to look through the form of an alleged infringing device for the substance which the patent was designed to secure, and where that is found there is infringement.

On the general question of infringement in this case, if on equivalency, we quote from the important *Paper Bag Case*, 210 U. S. 405, as follows:

“The two questions, therefore, which remain for decision, are the jurisdiction of the court and the question of infringement. We will consider the latter question first.

“It does not depend, counsel for the Continental Company says, ‘upon any issue of fact, but does depend, as questions of infringement’ sometimes do, upon a ‘point of law.’ This point of law, it is further said, has been formulated in a decision of this court as follows: ‘Where the patent does not embody a primary invention, but only an improvement on the prior art, and defendant’s machines can be differentiated, the charge of infringement is not sustained.’ Counsel for respondent do not contend that the Liddell invention is primary within the definition given of that term by petitioner. Their concession is that it is ‘not basic, in the sense of covering the first machine ever produced to make self-opening square bags by machinery.’ They do not contend, however,

that it is one of high rank, and if it be given a 'fair construction and scope, no matter whether we call it basic, primary, or broad, or even merely entitled to be construed, as covering obvious mechanical equivalents, the question of infringement of the claims in suit by petitioner's machine becomes mechanically, and from a patent law standpoint, a simple one, in spite of slight differences of operation and of reversal of some of the moving parts.' The lower courts did not designate the invention as either primary or secondary. They did, however, as we shall presently see, decide that it was one of high rank and entitled to a broad range of equivalents. It becomes necessary, therefore, to consider the point of law upon which petitioner contends the question of infringement depends."

"The citation is from *Cimiotti Unhairing Co. Fence Mach. Co. v. Kitselman*, 189 U. S. 47 L. Ed. 1100, 25 Sup. Ct. Rep. 697, and *Kokomo Fence Mach. Co. v. Kitselman*, 189 U. S., 47 L. Ed. 689, 23 Sup. Ct. Rep. 521, was adduced to sustain the proposition. But the whole opinion must be considered, and it will be seen from the language which we shall presently quote that it was not intended to say that the doctrine of equivalents applied only to primary patents.

"We do not think it is necessary to follow counsel for petition in his review of other cases which, he urges, sustain his contention. The right view is expressed in *Miller v. Eagle Mfg. Co.*, 151 U. S. 186, 207, 38 L. Ed. 121, 130, 14 Sup. Ct. Rep. 310, as follows: 'The range of equivalents depends upon the extent and nature of the invention. If the invention is broad or primary in its character, the range of equivalents will be correspond-

ingly broad, under the liberal construction which the courts give to such invention.’ And this was what was decided in *Kokomo Fence Mach. Co. v. Kitselman*, *Cimiotti Unhairing Co. v. American Fur. Ref. Co.*, and *Computing Scale Co. v. Automatic Scale Co.*, 204 U. S. 609, 51 L. Ed. 645, 27 Supt. Ct. Rep. 307. It is from the second of those cases, as we have seen, that the citation is made which petitioner contends the point of law which infringements depends is formulated; but it was said in that case: ‘It is well settled that a greater degree of liberality and a wider range of equivalents are permitted where the patent is of a pioneer character than when the invention is simply an improvement, maybe the last and successful step in the art theretofore partially developed by other inventors in the same field.’

“It is manifest, therefore, that it was not meant to decide that only pioneer patents are entitled to invoke the doctrine of equivalents, but that it was decided that the range of equivalents depends upon and varies with the degree of invention. See *Ives v. Hamilton*, 92 U. S. 426, 23 L. Ed. 494; *Hoyt v. Horne*, 145 U. S. 302, 36 L. Ed. 713, 12 Sup. Ct. Rep. 922; *Deering v. Winona Harvester Wks.*, 155 U. S. 286, 39 L. Ed. 153, 15 Sup. Ct. Rep. 118; *Walker, Patents*, Sec. 362; *Robinson, Patents*, Sec. 258.”

As to proper interpretation of this important patent marking a successful eventuation of the attempts of all others, including Double, to produce a successful underreamer, we refer to the admonition of the Supreme Court in *Keystone Mfg. Co. v. Adams*, 151 U. S. 139, which was couched in the following language:

“But when in a class of machines so widely used as those in question, it is made to appear that at last, after repeated and futile attempts, a machine has been contrived which accomplishes the result desired, and when the patent office has granted a patent to the successful inventor, the court should not be ready to adopt a narrow or astute construction, fatal to the grant.”

See also:

(C. C. Cal., 1910.) If a new combination *and arrangement* of known elements produces a new and beneficial result never attained before, it is evidence of invention, and such result need not be new and useful in a primary sense, but only approximately so. (Note: Patentability of combinations of old elements as dependent on results attained, see note to *National Tube Co. v. Aiken*, 91 C. C. A. 123.)

Beryle v. San Francisco Cornice Co., 181 F. 692, 695.

See also:

(C. C. A., 7th Cir., 1915.) “Invention of a combination does not lie in gathering up the elements that are employed, but consists in first perceiving (through study or experiment or accident) that a new and desirable result may be attained by bringing about a relationship of elements which no one has before perceived and then going forth to find the things that may be utilized in the new required relationship. (*Railroad Supply Co. v. Hart Steel Co.*, 222 Fed. 261.)”

Ritter Dental Mfg. Co. v. S. S. White Dental Mfg. Co., 220 O. G. 349.

(C. C. Pa., 1910.) A new combination, with a new mode of operation, may be invention, even if all the parts thereof are old, and even if the function of the combination is also old.

Eagle Wagon Works v. Columbia Wagon Co.,
181 F. 148.

That a machine shall produce an original result is not necessary to patentability; but, if the new arrangement increases the effectiveness of the old by increased product or by lessening the cost, the fact affords evidence of invention. (See Cent. Dig., Vol. 38, Patents, Sec. 30.)

National Tube Co. v. Aiken, 163 F. 254, 261
(6th Cir., 1908).

And we must bear in mind, particularly with respect to any tendency to specifically construe the word "prongs," that, as said in *Comptograph Company v. Universal Accounting Machine Co. et al.*, 142 Fed. 539:

"If the wording of a claim of a patent is fairly capable of two constructions, one which will sustain the claim and the other defeat it, that which will preserve the invention should be adopted."

The court will of course not confuse any of the issues of infringement by attempting to interpret one claim by means of another or other claims. Each claim stands alone and is in effect a separate patent, as clearly pronounced by the court in *Brookfield v. Novelty Glass Co.*, 170 Fed. 960, C. C. A. Each claim, as therein said, is of course to be construed in connection with the specification and the drawings, but each claim stands alone in its interpretation free from any limitation or variation, in its

proper interpretation, by another claim. This must be so, for were the contrary true, where certain claims are found ambiguous or incorrect or invalid, all of the other claims would perforce fall. The claims cannot be commensurate or else the purpose and office of separately claiming the invention would not exist.

It was also held in *American Steel & Wire Co. of New Jersey v. Denning Wire & Fence Co.*, 160 Fed. 108, affirmed in *Denning Wire & Fence Co. v. American Steel & Wire Co. of New Jersey*, 159 Fed. 793, C. C. A., that a patent is a contract, and the rules for the construction of contracts generally control in its interpretation, and when its terms are plain and the intention of the parties clearly manifest therefrom, they must prevail; but if its expressions are ambiguous, or its validity or any claim is doubtful, that construction will be given which will sustain, rather than destroy, the patent.

Also, in *Krajewski v. Pharr*, 105 Fed. 514, C. C. A., it was held that in construing the claims of a patent the meaning of the language employed must be ascertained by applying it to the subject matter which is described, *and whether a term is used in an exact or only in an approximate sense is to be determined by considering whether exactness is required to accomplish the result to be obtained.*

Also, as held in *Mossberg v. Nutter*, 68 C. C. A. 267, the claims of a patent are to be fairly construed in the light of specification and drawings, so as to cover, if possible, the invention, and thus save it, espe-

cially if it be a meritorious one; and, as held in *Century Electric Co. v. Westinghouse Electric Co.*, 112 C. C. A. 8, the intentions of the parties of a patent should be adduced from the entire contract, not from any part of it, nor without any part of it.

The prior art cannot be brought to bear in any successful attack upon the patent. The fatal objection to that is that each example requires reorganization and recombination in order to bring it anywhere near to the plane of the invention of the patent in suit. As to this we may refer further to *Los Alamitos Sugar Co. v. Carroll*, 173 Fed. 280, in which it was said:

“It is not sufficient to constitute an anticipation that the device relied upon might by a process of modification, reorganization, or combination, be made to accomplish the function performed by the device of the patent.” (C. C. A. Ninth Circuit.)

Also see *Western Electric Co. v. Home Telephone Co.*, 85 Fed. 649, in which the court said, as to any attempts to vary or make over prior devices:

“The force of this ruling is made manifest, in its practical application to the rights of parties, by the reflection that all earlier patents set up in defense against a later patent sued upon are but the record evidence of the state the art has reached. The rights under such later patent are subject to what this record actually shows. To change this record, by permitting theoretical modifications of these earlier patents, would be the same, in force, as to change, by interpolations or modifications, any other evidence between the parties.”

See also *Wales v. Waterbury Mfg. Co.*, 59 Fed. 285, in which it was said:

“One who takes old devices, with material defects, and retaining the desirable features, adapts them by novel modifications to new and varying conditions, so as to produce an article, superior to all others, is not anticipated by such prior devices.”

See also in this connection the leading case of *Topliff v. Topliff*, 145 U. S. 156.

See also:

Gunn v. Bridgeport Brass Co. (C. C.), 148 Fed. 239;

Ryan v. Newark Co. (C. C.), 96 Fed. 100;

Simonds R. M. Co. v. Hathorn Mfg. Co. (C. C.), 90 Fed. 201-208;

Merrow v. Shoemaker (C. C.), 59 Fed. 120.

As said by the Circuit Court of Appeals for the First Circuit, in *Forsyth v. Garlock*, 142 Fed. 461-463:

“Our general observation as to these is that the citation of so many patents by a respondent in an infringement suit sometimes tends, as we have several times said, not so much to weaken the complainant’s position as to strengthen it, by showing that the trade had long and persistently been seeking in vain for what the complainant finally accomplished.”

The defendant here has taken of the substance of the invention and taken it wilfully and it requires no artificial rule of interpretation to find the gist and essence and substantial substance of the complainant’s

invention as patented, embodied and incorporated in defendant's structures. The Double combination has been simply made over into the Wilson combination—that is all.

In answer to appellant's attempts to cloud the issue of infringement here, we call the court's attention to the following language from *Crown Cork and Seal Co. v. Aluminum Stopper Co.*, 108 Fed. 866, in which it is said:

“The court will look through the disguises, however ingenious, to see whether the inventive idea of the original inventor has been appropriated, and whether the defendant's device contains the material features of the patent in suit, and will declare infringement even when those features have been supplemented and modified to such an extent that the defendant may be entitled to a patent for the improvement.”

Counsel for appellant in his final argument on final hearing before the trial court used the following language:

“Now, Your Honor, the question here is, have we changed from the prior art to what Mr. Wilson produced over and above the art? And that is the whole case one way or the other.”

By this test, appellant could not conceal its infringement from the merest tyro in mechanics or patent law. As said in *Hobbs v. Beach*, 180 U. S. 383:

“If there be one central controlling purpose deducible from all these decisions, and many more that might be quoted, it is the steadfast determination of the court to protect and reward the man

who has done something which has actually advanced the condition of mankind, something by which the work of the world is done better and more expeditiously than it was before.”

Defendant Followed Wilson—Not Prior Art.

The “hollow slotted extension” form of lower end of underreamer bodies adopted by Double in Defendant’s Exhibit Double Patent No. 1, under which suit was brought against complainants in the companion case, *supra*, was a form of lower body formation old in the art as in Defendant’s Exhibit O’Donnell and Willard Patent [R. 1004] and Defendant’s Exhibit Swan Patent. [R. 998.] Wilson struck out in radical modification of this formation, and the defendant corporation followed him in modification and alteration, leading up to the production of separate spaced prongs in the Type “F” reamer, and clearly invaded complainant’s monopolized territory in the changes and variations which it made, *even if it did not go the whole route and add the one further advantage of collapsion of cutters between the prongs*. This, as the honorable trial judge has held, *was not the sole and life-giving principle of the Wilson invention by any means*. It may be said that the defendant used easily 90 per cent of the total substance and features of advantage of the patent in suit. To have used one per cent would have been enough—for whether the whole fund or only a part be taken, misappropriation results. As another well-known authority says, defendant here proves the prior art and uses the complainant’s invention.

In the prosecution of another application for patent

filed by the said Double in the United States Patent Office, the Wilson patent in suit was cited against certain of the claims, and this patent had the “hollow slotted extension” form at the lower terminal end of the reamer body. This is with respect to U. S. Patent No. 862,317, and with the permission of the court a certified copy of the file wrapper and contents of that patent will be filed, as the record of a federal department, to show that the patent office recognized the incorporation in the Double underreamer, of the “hollow slotted extension” type, of certain features of the Wilson patent, pertaining particularly to the lugs 2' with their spreading bearing 9 and the lateral shoulders on the cutters with their bearing-faces 4³. This is strong and persuasive evidence of the conversion of the defendant's Double underreamer into a “Wilsonized” underreamer.

Propriety of the Consolidation of Sub-Causes A-4 and B-62, and of the Charge and Findings of Infringement in the Consolidated Cause, as to the Several Types of Reamers of Defendant.

On this head we call the court's particular attention to paragraph III of the interlocutory decree, as follows [R. pp. 88 and 89]:—

“That the two suits Nos. A-4 and B-62 consolidated and joined and merged together to constitute this unitary cause of action were, upon order of the court, duly and properly consolidated, merged and joined together, whereby the pleadings, proofs, proceedings and offers in evidence of the parties in each of such suits became and are the pleadings, evidence, proceedings and

proofs of the parties in such consolidated suit or cause of action, whereby the defendant herein further was, as to any such pleadings, proceedings, evidence and proofs of infringement and wrongdoing charged therein, charged with infringement of claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19 of the said letters patent No. 827,595."

And also to the following portions of the memorandum of ruling on rehearing:

"Memorandum of Ruling on Rehearing.

Raymond Ives Blakeslee, for complainant.

Frederick S. Lyon, for defendant.

Cushman, District Judge.

Prior to the order consolidating A-4 and B-62, much was said by complainant's counsel in the proceedings in A-4 to support the contention now made by defendant upon its petition for a rehearing; but it must be borne in mind that such statements were made with a view to securing—after the taking of complainant's opening proof, or the greater part of it—a stipulation from defendant's counsel to waive complainant's election (which had been announced early in the taking of such proof) to stand—in A-4—upon claims 16 and 17 of the patent and to discontinue the suit upon the other claims of the patent. The stipulation was not made; B-62 was begun and consolidated with A-4.

All that is said by complainant's counsel, after the commencement of B-62, and especially after the consolidation—upon which statements defendant relies—does not warrant the narrowing in any way of the issues tendered by the allegations of bill in B-62. Especially is this true in view of the notice given by com-

plainant's counsel after such consolidation and before defendant began taking testimony. This notice was as follows: [72]

'Complainant gives notice to the defendant at this time that alternative to any disposition which may be made of equity suit No. B-62, consolidated by the order of the court with equity suit No. A-4, and thus constituting at present the suit known as equity suit No. A-4 consolidated, in which these proceedings are being conducted, namely, any disposition which may be made of said equity suit No. B-62 at the final hearing of this case with respect to such consolidation of said two cases complainant at such final hearing will reply upon claims Nos. 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19, of the Wilson patent in suit herein. This notice of alternative attitude or position is given at this time in order that defendant may be apprised in the premises before commencing the taking of its proofs.'

That which was said by counsel for complainant after the commencement of B-62 is more reasonably explained by giving effect to the following considerations:

The main purpose in bringing B-62 was, doubtless, to determine the question of the infringement, by Type 'F,' of several claims of the patent withdrawn from consideration in A-4, by the election therein made by complainant to rely entirely on claims Nos. 16 and 17. Further, such statements were rather made as statements of what had been done and said theretofore in A-4 than as announcements of what it was proposed to do in B-62.

Nothing short of a clear, unequivocal election to withdraw or discontinue the suit as to alleged infringements set out in B-62 would suffice to narrow the issues thereby tendered. The discontinuance in A-4 as to other claims—which was worked upon the election to stand upon claims 16 and 17—did not have the effect of a judgment upon the merits, or any other than that of a voluntary nonsuit. [73]

It is not necessary to determine the effect which such election would have had if A-4 had gone to final judgment before B-62 was begun and the consolidation with A-4 ordered. Counsel for complainant having withdrawn by the election, part of his claim for infringement, had a right to withdraw such election, and the rights of the defendant growing out of the election and the proceedings subsequent to such election and prior to notice of its withdrawal, would give no ground for denying complainant's ultimate right to again broaden the issues. The only effect of such election and the proceedings thereafter and prior to notice of its withdrawal, or amendment of election, would be to give the defendant, under certain circumstances, a right to the imposition of terms and the right to demand an opportunity to further cross-examine complainant's witnesses, theretofore testifying. The defendant having made no demand for such opportunity, must be held to have waived the same, and, in consideration of the scope of the cross-examination, the court feels that it was in no way prejudiced thereby.

It is probable if any of the witnesses already examined—whose testimony was relevant to the broadened

issues—had died, the testimony of such witnesses would have to be stricken, or the first suit abandoned and a new one brought. But the court is not called upon to decide such a question. In so far as any question of splitting this cause of action is concerned, that matter was foreclosed by Judge Bledsoe's order denying the motion to dismiss B-62.

Counsel for defendant has again urged upon the court consideration of the merits. The forked formation of complainant's reamer body was essential to the complete collapse of the cutters; but it was not essential to the coercion in the particular in which infringement is found. The fact that, in describing, in the claims, a member of a machine which performs two functions in such a way as to disclose a feature of its [74] fitness to perform one function, which feature is not essential to the discharge of its other function, does not warrant competitors in dropping such feature and thereby appropriate one-half of the invention and its advantage, nor prevent the court from according the patentee such a range of equivalents as will fairly protect him in the substantial merits of his invention. If so, form becomes everything and substance nothing. Rehearing denied."

We believe that appellee's position is sound and stable on these questions, and as they have been thoroughly briefed by appellee before the Honorable Trial Judge both before and after the rehearing order upon which a decision adverse to appellant was made, we beg to quote therefrom with proper alterations to fit the cause as on appeal. Such technical objections as

were raised by appellant are to be disposed of within the spirit of Equity Rule 19, which was manifestly promulgated to that end and which we quote at this place in full:

“The court may at any time, in furtherance of justice, upon such terms as may be just, permit any process, proceeding, pleading or record to be amended, or material supplemental matter to be set forth in an amended or supplemental pleading. The court, at every stage of the proceeding, *must* disregard any error or defect in the proceeding which does not affect the substantial rights of the parties.”

The appellee *never waived any of his rights* under any of the claims of the patent in suit, *but merely elected on the record in A-4* to prosecute his charge of infringement under two claims, 16 and 17. Upon the production of Type “F” underreamer by defendant, the infringement, including that in the other defendant’s reamers, appearing more clearly to involve numerous other claims, a new suit, B-62, was brought electing to stand upon these further claims, and referring to the election as to claims 16 and 17 in A-4, which it was desired not to be further bound by. Appellant moved to dismiss this suit, the second cause, B-62, but the motion was denied. The Honorable Trial Judge says that the matter of alleged splitting up the cause of action under the patent in suit, and therefore the right to further consider same in this case, was foreclosed by such ruling of Judge Bledsoe, who, as we have said, likewise granted complainant’s motion to consolidate the two causes into one suit and to use the proofs

already taken in A-4 in such consolidated cause. And *all* the infringing forms of defendant's reamers had already been offered in evidence in A-4.

All of the claims then, at *any* time elected to be relied upon by complainant, pertain to *all* of the exhibits and *all* the infringing devices of defendant, in this consolidated cause, known in the trial court as *A-4 Consolidated!*

The motion for leave to amend the bill of complaint in B-62 and to consolidate will be found in record, page 37. The motion for order consolidating the causes and the notice thereof will be found on page 26 of the record, and a further motion to consolidate on page 36 of record. The final order consolidating the causes and making the *prima facie* proofs taken the *prima facie* proofs in the consolidated cause will be found on record, page 60. The first consolidating order and order denying motion to dismiss A-4 is on record, page 49. The order denying motion to dismiss amended B-62 bill of complaint is on record, page 51. The order granting motion for leave to amend bill of complaint, etc., in B-62 will be found on record, page 48.

Pursuant to Equity Rule 26 the complainant may join in one bill as many causes of action cognizable in equity, as he may have against the defendant, and as said in *Railroad Supply Co. v. Hart Steel Co., et al.* (C. C. A.), 222 Fed. 261, 267:

“in contemplation of law each claim of the patent must be considered as setting forth a complete and independent invention.” (For other causes, see *Patents, Cent. Dig., Sec. 241; Dec. Dig. 165.*) (Decree 193 Fed. 418 reversed.)

Violation of any of the claims or two groups of claims elected in the respective sub-cases A.4 and B-62 are therefore separate torts. Appellee was warranted in suing appellant for infringement of any claim of his patent, as to *any* violation thereof, irrespective of any prior procedure, and the procedure of appellee was clearly proper, as to filing original bill and moving for consolidation of the two sub-causes, as see the following most pertinent authority:

In *Vigneron et al. v. Auto Time Saver Repair Kit Co.*, 171 Fed. 580, the court said:

“An original bill, in the nature of a supplemental bill, filed by a complainant to bring in new facts, where a supplemental bill would have been proper, may be allowed to stand, where it is stipulated that proofs previously taken may be used, so that the defendant is not prejudiced. (See Equity, Cent. Dig., Sec. 586; Dec. Dig., Sec. 296.)”

The procedure had on the order of the Honorable Judge Bledsoe was strictly in accordance with this authority, inasmuch as *the court ordered that the proofs taken prior to consolidation were to be prima facie proofs of complainant, and therefore defendant was in no way prejudiced.* But our bill in the motion of a supplemental bill was proper, as we shall see.

Further in this connection, as to procedure either by supplemental bill or new bill, on expanding the charge of infringement, see:

Brookfield v. Novelty Mfg. Company, 170 Fed. 960 (C. C. A).

It is appellee's contention that not only the bringing of the *new* bill in B-62, which was likewise in the nature of a supplemental bill, as set forth in the motion for leave to amend the bill of complaint and to consolidate, made in B-62, which motion was granted, such motion stating the said bill of complaint and the amended bill of complaint herein being in the nature of a supplemental bill:—"not only that the bringing of the new bill in B-62 was clearly pursuant to the provisions of Equity Rule 19, but that the court's order denying defendant's motion to dismiss this bill, the court's order granting leave to file the amended bill, and the court's order consolidating B-62 and A-4 (on separate motions brought in the respective sub-suits), and the court's order denying motion to dismiss A-4, all come within the clear provisions of this rule 19. The bill in B-62 was not in fact a supplemental bill. It was a new bill in certain respects, in the nature of a supplemental bill, and the procedure in bringing such new bill was carefully chosen and decided upon in view of all the circumstances, and particularly in view of counsel for appellant's contention *that in suit A-4 appellee would always be considered by appellant to be bound by election as to claims 16 and 17.* The manifest purposes of this rule 19 was to permit an equity suit to be proceeded with and determined upon the merits of the case irrespective of and in disregard of "any error or defect in the proceeding which does not affect the substantial rights of the parties." Therefore, under rules 19, 26 and 34, in spite of the fact that appellant had had its day in court before Judge Bledsoe on these matters, Judge Cushman might have purged the pro-

ceedings of any slightest color of "error" or "defect" which might have appeared to the court to have remained, by the very simple expedient of making an order permitting complainant to file a bill *nunc pro tunc* as of the date of filing the bill in A-4, such bill alleging infringement of the claims relied upon by election on the record in A-4 and in the bill in B-62. As Walker on Patents, Sec. 415, says:

"Section 721 of the revised statutes of the United States provides that 'The laws of the several states, except where the constitution, treaties, or statutes of the United States otherwise require or provide, shall be regarded as rules of decision in trials at common law, in cases where they apply.' Under this section of the revised statutes, these laws of the states will probably have the same effect in a patent suit in a United States court, that they would have in any action of trespass on the case in a state court."

So under sections 469, 470, Code of Civil Procedure of the state of California, even were rules 19, 26 and 34 not plainly to that end, the trial court could have ordered the pleadings herein amended to fit and cover the findings, had it been deemed at all necessary so to do. Our contention is that the appellant is foreclosed on all these matters by the proceedings, both before Judge Cushman, and the discretionary powers conferred upon the trial court in such matters, as under said rules 19, 26 and 34. The merits were considered properly brought before the court, and it is too late to disturb them by any of the skin-saving technical raids of defendant.

It will be seen that all the proofs on behalf of appellant were taken in the consolidated case on a single procedure in that case, the minute order of Judge Bledsoe the 15th day of February, 1915, consolidating A-4 and B-62, stating:

“it is by the court ordered that the motion to consolidate this cause with case No. B-62 Equity, between the same parties be, and the same hereby is granted, and that, accordingly this cause be, and the same hereby is consolidated with said cause No. B-62 Equity Elihu C. Wilson, Complainant, vs. Union Tool Company, Defendant, *under the number and title of said cause A-4-Equity;*”

Likewise it will be further seen from this minute order and the minute order of Judge Bledsoe of the 19th day of April, 1915, that there came before the trial judge for final hearing but *one* consolidated cause, said minute order of February 15, 1915, stating

“defendant being by the court assigned to answer the bills of complaint in this *cause* as now consolidated within thirty (30) days”

And defendant has already answered in A-4! So this consolidated case was now a *new case* in toto!

And in the minute order of April 19, 1915, we find “it is ordered that defendant have until and including July 31st, 1915, in which to put in its proofs in said consolidated *cause*, and that complainant have until and including August 31st in which to put in its proofs in rebuttal.”

Further in this same order we find “it is ordered by the court, that said proofs may be considered and

treated as complainant's *prima facie* case in the consolidated *cause*;" so we find defendant taking his proofs "under the number and title of said cause A-4-Equity;—" [Ordered February 15, 1915, on R. p. 50.] Clearly but *one consolidated cause* came before the trial court on final hearing.

In these matters appellee stands upon the minute orders of record, behind which appellant cannot go.

Both the election in A-4 as to the claims 16 and 17, and the notice given on the record to defendant prior to the commencement of its proofs, are matters of record and not of pleadings. The pleadings, also, in no place and in no respect refer to Type "F" or to the Double Improved reamer or to Type "C," "D" or "E," or any of them, *but only refer broadly to infringement by defendant*. Surely the notice given to defendant on the record [p. 541], quoted above, being so given prior to the commencement of the deposition of any witness on behalf of defendant, and given *in consolidated cause A-4*, was sufficient notice under the different pleadings and pursuant to the Court's orders, to put defendant upon its own procedure by inquiry, motion or otherwise, *if it intended to ever thereafter raise any question as to what types of defendant's reamer, or what exhibits, (ALL OF SUCH TYPES AND EXHIBITS NOW BEFORE THE COURT HAVING THERETOFORE BEEN OFFERED AND RECEIVED IN EVIDENCE), were charged to be infringed by these claims and any and all of them*. The position of complainant had certainly been changed by the previously entered orders to consolidate A-4 and B-62, to make the *prima facie* proofs in A-4 those "in the con-

solidated cause,” and permit the pleadings in B-62 to stand, in which pleadings were included charge of infringement of the further claims, including claims 9 and 19, and denying motion to dismiss B-62. Defendant took no steps at this time or thereafter prior to final hearing, and there can be but one presumption and could at that time been but one presumption, namely, that with the pleadings in their then condition, the notice given by complainant on the record before the commencement of defendant’s proofs was a proper notice, as the Honorable Trial Judge found in his opinion, and would go to the full extent of its plain meaning and the meaning of the provision and the sweeping provisions of the amplified pleadings as they then stood. Within the well-known doctrinal duty of a party to “speak out,” defendant should have spoken when this notice was given on the record, within all equity and fairness, had he not been willing that his silence should be considered tantamount to acquiescence and endorsement. Appellant’s contentions that the pleadings and procedure do not support the findings of infringement is clearly against equity, and apparently a mere after-thought, a straw-grasping.

It will be found nowhere in the records or pleadings of this consolidated cause that appellee at any time admitted that appellant did not infringe any of the claims relied upon in the consolidated cause, including claims 9 and 19, or that complainant at any time waived his right to prosecute or charge such infringement. Certainly it was not incumbent upon complainant in this consolidated cause to insist on the record, or in argument before the trial court, in treating of appel-

lant's reamers or appellee's patented reamers, that the pronged Wilson construction was the equivalent of the hollow-slotted extension Double construction. Counsel for appellant before the trial court had so insisted in the companion case tried immediately before this case, and the Honorable Trial Court has so found as a matter of law and fact in the decision in 237 Fed. R., referred to above. That was for the trial judge to find, as he did. Neither the record nor the pleadings raise a barrier against our benefiting by these findings of the court; in fact, the pleadings and notice to defendant manifestly made provision for such finding. Had B-62 been brought merely to cover Type "F" appellant would have included claims 16 and 17 in that bill, and then consolidation would have been unnecessary, and only Type "F" would have been put in evidence. It *was brought to bring in claims 9 and 19, etc., and all of the defendant's types of reamers.* Appellant's counsel's position is and can be only that he did not, or was not capable of, understanding clear pleadings and procedure put into effect and endorsed by Judge Bledsoe, plus clear legal notice on the record. Clearly all of the types found to infringe partake of the substance of complainant's invention. *A finding of infringement as to Type "F" consistently carries with it a finding of infringement as to the other types found to infringe, even if the Type "F" reamer might properly be found further to infringe.* Counsel for appellee stated on the record [R. 122]:

"I don't think it is necessary to concede that there has been no infringement of other claims, but for the purposes of this suit I state that we will

stand solely upon claims 16 and 17 taken together with the other parts of the patent, namely, the specifications and drawings and the other claims in so far as they are merely interpretative of the disclosure. I am dealing now purely with the issue of invention as reflected by said claims subject, of course, to such interpretations thereof as may be made.”

Upon the bringing of our new bill in B-62 which asserted other claims, including those found infringed, the two suits were merged together, the parties were the same, the patent sued under the same, the jurisdiction the same, and the infringing devices complained of in toto the same. Two causes or two groups of causes of action in the two sub-cases were presented and these causes of action were joined in effect into one bill by the order of consolidation, pursuant to rule 26. Judge Bledsoe manifestly applied his discretionary powers under rule 34 on the theory that our second bill was an original bill and likewise an original bill *in the nature of a supplemental bill*. Manifestly he consolidated these cases because of the new pleadings in B-62, and the amended bill in B-62, and because that bill and amended bill were the same in substance as the bill in A-4, with the exception of the allegation in paragraph 5 of the bill in B-62 of the infringement of the letters patent in suit, “particularly as set forth and defined in claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15 and 19 thereof,” and with the further exception of the very important allegation in the amended bill of complaint permitted to be entered in B-62 by Judge Bledsoe, paragraph 5 thereof, to-wit:

“And your orator further shows unto Your Honors that there is pending between the parties to this suit in equity in this same court, another suit in equity entitled Elishu C. Wilson, complainant, vs. Union Tool Company, defendant, No. A-4, in which infringement by the defendant herein is charged with respect to the letters patent sued under herein; that certain proofs have been taken on behalf of complainant in said other suit and an election has been made to stand upon claims sixteen and seventeen of said patent in suit; that since the commencement of taking of proofs in said other suit, defendant herein, and in said other suit, has been found to have departed from its original procedure in the manufacture and sale of underreamers, and to have further and more elaborately infringed the letters patent sued under therein and herein, thereby as your orator alleges upon information and belief, infringing, or further infringing, claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15 and 19 of the said patent therein and herein sued under, all as hereinafter more particularly alleged.”

The consolidated cause A-4 was not merely a consolidation for trial. It was a new *entity*.

The minute orders show that the amended bill was permitted to be filed, that defendant's motion to dismiss B-62 and even defendant's motion to dismiss A-4 were denied, that the two suits A-4 and B-62 were consolidated into one *cause*, that complainant was given leave to answer the bills in the consolidated *cause*, and that the *prima facie* proofs in A-4

“may be considered and treated as complainant's *prima facie* case in the consolidated *cause*.”
(Minute Order of April 19, 1915.)

The record and files show that the defendant filed an answer to the bill of complaint in each suit. He cannot urge that he did not have full opportunity to interpose any and all defenses he might have had, not only to the patent with respect to the claims elected on the record in A-4 and those further set up in the bill in B-62, but with respect to the entire patent, inasmuch as the bill in A-4 set up the entire patent and the election was only subsequently made *on the record*. Therefore under rule 19 with its broad provisions as to amendments or setting forth of supplemental matter in an amended or supplemental pleading, and with its direction that the court *must* at every stage of the proceeding disregard any mere error or defect in the proceeding which does not affect the substantial rights of the parties; and under rule 26 providing for the joining by the complainant in one bill of as many causes of action in equity as he may have against the defendant; and under the provisions of rule 34 providing for the filing and serving of a supplemental pleading;—under and pursuant to these three rules in particular, and the general doctrines of equitable procedure, Judge Bledsoe with authority, and properly, permitted the new bill in B-62 and the amended bill therein, in the nature of a supplemental bill, to stand, permitted A-4 to stand, consolidated the causes of actions in the two suits, *welding them together particularly by making the prima facie proofs in A-4 with all of the exhibits alleged to be infringed the prima facie proofs of the consolidated cause*, and denied defendant's motion to dismiss B-62 and A-4, thus certainly and effectively curing the election on the record in A-4 as to claims

16 and 17 insofar as it could interfere with the charges of infringement asserted *as to the further claims in B-62*, in effect providing under rule 26 for the presenting by appellee

“in one bill as many causes of action, cognizable in equity, as he may have against the *defendant*.”

And, as to the assertion of the charge of infringement of the further claims set forth in B-62, curing effectively under rule 19

“any error or defect in the proceeding which does not affect the *substantial rights of the parties*”

That it was proper to assert claims further than those elected on the record in A-4, by a new bill *in the nature of a supplemental bill*, see *Leeds & Catlin Co. v. Victor Talking Machine Co.*, 213 U. S., at page 319, quoting from the opinion:

“claims are independent inventions. One may be infringed, others not, and the redress of the patentee is limited to the injury he suffers, not by the abstract rights which have been granted him in other claims. One claim may be valid, all the rest invalid; invalid for want of some essential patentable attribute. But what is good remains and is unaffected by its illegal associates. In such cases the patent does not stand or fall as a unity. If claims may be separable as in the case of infringement of some and not of others; if claims can be separable, though some are invalid, may they not be separable when some of them have expired?”

The bill in B-62 was a *new bill*, insofar as it affected the issues in A-4, nullifying the controlling effect of

the election with respect to claims 16 and 17 in A-4, and setting forth further charges of infringement. Specifically as to any new infringement since the bill in A-4 it was in the nature of a supplemental bill. So, as a bill in the nature of a supplemental bill it was presented for the court's consideration in the motion to consolidate B-62 with A-4 and for leave to file the amended bill in B-62, which motion by complainant recited

“the said bill of complaint and the amended bill of complaint herein being in the nature of a supplemental bill,”.

Thus the bill and amended bill in B-62 were a new bill, presented in order that the captious objections of counsel with respect to our procedure after election *on the record* in A-4 might not be binding upon the procedure with respect to our enlarged charge of infringement, and was properly to be considered as a bill in the nature of a supplemental bill with respect to setting forth further matters of knowledge or charge arising after filing the first bill or after making the election therein.

Such bill and amended bill in B-62 are properly to be considered as an original bill in the nature of a supplemental bill, as see *Harrman-De Laire-Shaffer Co. v. Louders et al.*, 135 Fed. 120, 1st Syl. and p. 121, quoting from opinion:

“The defendants have demurred to an original bill in the nature of a supplemental bill filed by leave of the court. The objection that the bill is a supplemental bill and not an original bill in the nature of a supplemental bill, is without merit. The

bill conforms in form and substance to the requirements of an original bill in the nature of a supplemental bill. Story's Equity Pleading (9th Ed.), Sec. 353; Beach, Modern Eq. Practice, Sec. 512."

It was immaterial what the bill and amended bill in B-62 were called or what specific language was used. It is the *effect* of filing such new bill in the nature of a supplemental bill that is controlling here. It clearly revamped or amplified the pleadings of the resultant *consolidated cause* so as to *put before this court an abiding place or repository for the findings of infringement pertinent to the improved Double reamers in the several forms and types thereof in addition to, as well as including, Type "F."*

Foster's Federal Practice, Sec. 191, sets forth the nature of a bill in the nature of a supplemental bill and says:

"A bill, which complies with the requirements of an original bill in the nature of a supplemental bill, may be sustained as one, although it is styled a supplemental bill."

Also this section states:

"It will not be impertinent for it to *restate allegations of the bill or answer in the original suit, nor to charge new matter which occurred before the original bill was filed*, for the purpose of meeting a defense in the original answer."

That such bill in the nature of a supplemental bill is not dominated by the pleadings and record of the first bill is shown by section 192, Foster's Federal Practice:

“But the probable meaning and the view of the matter best supported by authority are, that upon the filing of what is called a bill in the nature of a supplemental bill, no further benefit of the proceedings in the original suit can be obtained than would be if it were styled merely an original bill; and the evidence and admissions and the benefit of the decree in the former suit will only be allowed when the parties to the second are in privity with those to the first suit.” *Here they are the same.*

The fact that the parties were the same in A-4 and B-62 indicates further that Judge Bledsoe consolidated these suits which would otherwise have been independent in their conduct, *not* merely to simplify procedure, or for *trial*, but, the parties being the same, in order to produce one consolidated *cause* (and not causes) which could not otherwise have been done.

Walker on Patents, Sec. 630, states:

“But the first two sorts of bills” (supplemental bills or bills in the nature of supplemental bills) “are based upon events about the true character of which, counsel may be mistaken in any given case, and it is therefore necessary, in order to avoid an improper accumulation of pleadings, that the court should pass upon the propriety of such bills before they are filed.”

The propriety of B-62 was passed upon on defendant's motion to dismiss it. The further order consolidating B-62 and A-4 *further conclusively endorsed and approved of the bill or bill in the nature of a supplemental bill in B-62 and the amended bill therein.*

Any quibble over the form of the bill in B-62 or of the amended bill in B-62 was thus squelched by the order denying defendant's motion to dismiss B-62, and even A-4, and the order to consolidate B-62 and A-4, and the further cementitious order making the *prima facie* proofs in A-4 the *prima facie* proofs in the *consolidated cause*.

Why did defendant's counsel move to dismiss A-4 also? He must have been temporizing with the court in his presumptuous attempt to shield his guilty clients from any procedure. He hopes by raising enough dust to escape entirely. But it takes a very dusty desert to produce enough dust to cover a dust-raising camel!

Each and every one of the exhibits of the different Double improved reamers, including the Improved Double Reamer and Cutters and Types "D" and "E," as well as "F," were offered in evidence in A-4, and under the court's order were automatically received in evidence in the consolidated cause, and the court said in the minute order of April 19, 1915:

"It is ordered by the court, that said proofs may be considered and treated as complainant's *prima facie* case in the *consolidated cause*;"

Complainant *might* have brought in Type "F" under claims 16 and 17, in A-4, by a supplemental bill or possibly without it. But, to enlarge the scope of charge of infringement as against Type "F" and other Double improved reamers, including "D" and "E," some move had to be made to circumvent the election made on the record in A-4 as to claims 16 and 17, and that move was made as we have seen within the clear meaning

and provisions of rules 19, 26 and 34. And in the bill in B-62 we do not even mention claims 16 and 17 among those alleged infringed; so *B-62 was not brought merely to get Type "F" before the court.*

Within these rules the joining of the separate causes of action with respect to the different claims, the amending or revision or amplifying of the pleadings, and the curing of any technical defect in the proceedings were all accomplished by filing the new bill or the new bill in the nature of a supplemental bill, by obtaining the order of the court approving such bill and its amendment and ordering the consolidation of the two bills or two sub-suits, and making the *prima facie* proofs in A-4 the *prima facie* proofs in the *consolidated cause*. *All of which, with the notice on the record before taking defendant's proofs, created a condition of pleadings and record so clear and unmistakable that defendant cannot at this time or could not heretofore since the minute orders of Judge Bledsoe referred to, raise any contention that the decree in this consolidated cause could not properly cover the full findings of the court in the memorandum decision, in which both Types "D" and "E" and the Improved Double Reamer and Cutters, as well as Type "F," were found to infringe the Wilson patent in suit.*

It is not a question now of what defendant would like to *assume* or *pretend*, or what he somehow *understood* the situation to be on the pleadings and record and files; but rather what the pleadings and record and files actually *are* and what the clear import and controlling effect thereof is.

That merely bringing in a new form might have been accomplished by a mere supplemental bill, see *Westinghouse Air Brake Co. v. Christensen Engineering Co.*, 126 Fed. 764, and *Chicago Grain Door Co. v. Chicago B. & Q. R. Co. et al.*, 137 Fed. 101, citing the last mentioned case *supra*, and particularly on page 105 beginning at:

“A broader rule, however, applies to the taking of the account.”

But complainant brought neither a supplemental bill nor an amended bill, but brought a new bill which may be considered a bill in the nature of a supplemental bill, as pleaded, and it has been merged with the bill in A-4 into the pleadings of a single *consolidated cause* with the permission of the court, such cause having within its proofs and on its record all the exhibits, as to which infringement of any of the claims is charged, *under full notice as to the claims to be relied upon given defendant before any proofs were taken by defendant, and after defendant had answered both bills of complainant as to the entire patent.*

We have seen that it was not in fact necessary for complainant to bring a supplemental bill, even in order to set up Type “F” and bring it within A-4 (*Westinghouse Air Brake Co. v. Christensen Engineering Co.*, 126 Fed. 764, *supra*); but that a new form *might* be brought in a supplemental bill (as held in *Chicago Grain Door Co. v. Chicago B. & Q. R. Co., et al.*, 137 Fed. 101, at page 105, *supra*). Certainly it was not necessary to bring a *new bill* in order to get Type “F” into A-4, *for it had been offered therein. The whole*

question presented to complainant in putting into motion the procedure which involved the filing of a new bill, was the question as to enlarging the charge of infringement over and beyond the election as to claims 16 and 17 made on the record in A-4. The course chosen involved the filing of a new bill, and that new bill, or the amended new bill, in the nature of a supplemental bill, referred to the election in A-4 and plainly referred to it, as in paragraph V above, in order to clearly show the reason for filing the new bill in B-62, namely, to reassert other claims including 9 and 19, upon a showing that the defendant therein, and in A-4, had, since the commencement of taking proofs in A-4, "been found to have departed from its original procedure in the manufacture and sale of underreamers and to have further and more elaborately infringed the Letters Patent sued under therein and herein, thereby as your orator alleges upon information and belief, infringing, or further infringing, claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15 and 19 of the said patent therein and herein sued under,—".

It will be noted that the allegation was *not* that the defendant has been found to have yet further and more elaborately infringed the letters patent *since* the commencement of taking proofs in A-4, but *has been found SINCE the commencing of proofs in A-4, to have departed* from its original procedure in the manufacture and sale of underreamers and to have *further and more elaborately infringed the letters patent sued under*. In other words, what the pleading shows is that complainant since the commencing of taking proofs in A-4 had determined that defendant therein and in B-62 had

more elaborately and further infringed than indicated by the election to stand upon claims 16 and 17 in A-4. Certainly the attempt of counsel for defendant to garble this pleading into an allegation that we stood upon the election in A-4 is absurd, or that we were not *in effect* withdrawing that election, as the pleading recites the election clearly for the purpose of showing that such election would not lead to the full determination of the issues of infringement which complainant has determined since commencing the taking of proofs in A-4 were far more extensive than permitted within the narrow confines of any such election *on the record* as to claims 16 and 17.

Therefore, in the resultant consolidated suit, *complainant is entitled to the full breadth of the pleadings as amplified by the amended new bill in the nature of a supplemental bill in B-62, which Judge Bledsoe permitted to stand presumably, and now, we submit beyond question, in order that the clear intention and purport of such pleadings act to relieve complainant from the election made on the record as to claims 16 and 17 in A-4.* That was the argument made by complainant's counsel on the motion concerned. By complainant's procedure and the court's rulings thereon, the machinery of the court was set into motion to bring all the devices of defendant now found to infringe within the further claims of complainant's patent; and that machinery has automatically, *and with only one precise possible result,* produced such result. *And the trial court has four times now passed upon these questions.*

As we suggested in our brief on re-hearing:

“Your Honor may within the pleadings, and within the spirit of rules 19, 26 and 34, adopt several procedures if Your Honor still believes any defect or error appears, as suggested, *supra*, with respect to permitting a new bill to be filed alleging all of the claims relied upon, including 9 and 19, to be infringed, and to be the bill for the consolidated cause; or Your Honor may for the purpose of complying with rule 19 make *nunc pro tunc* order that the second bill is in effect a supplemental bill because that after consolidation the second bill and all proceedings thereunder were substantially identical with supplemental bill, and the usual objection of unnecessary expense under new original bill as compared to supplemental bill was cured in the present case by consolidation.

Other courses may be open to Your Honor within the purview of rules 19, 26 and 34. But it is not believed that anything has been left undone which could properly have been done to bring the findings of infringement in the memorandum decision fully and completely within the pleadings as they now stand. On either side of the situation complainant must prevail. The consolidation with the order as to *prima facie* proofs for the consolidated cause brought all of the exhibits of defendant's infringing reamers within the pleadings introduced by B-62 and the enlarged charge of infringement thereunder; and likewise the new pleadings in B-62, because of the consolidation, nullified the limiting election as to claims 16 and 17 made in A-4. The order of consolidation made the bill in B-62 substantially a supplemental bill in effect, so that all the defendant's exhibits were brought

under the further claims set up in B-62, as well as those elected in A-4.

Clearly defendant's counsel is at error in attempting to garble the present controversy, if there be any, when he says that the Type 'F' reamer was the cause of the procedure in B-62. Let us see where and how this matter first arose. It is true that while we did not concede there had been no infringement of other claims than 16 and 17 in A-4, we did state that *for the purpose of that suit*, in dealing with the claims, we would stand upon only claims 16 and 17. *But the consolidated suit now before the court, and certainly B-62 was part thereof, is not the suit A-4, and all the proceedings pertinent to consolidation in B-62 and A-4 introduced further causes of action and produced a new suit."*

It will be seen that when Complainant's Exhibit Reamer Type "F" was offered in evidence, the following took place [R. p. 99]:— —

"Mr. Blakeslee: We offer in evidence the reamer just taken apart and discussed by the witness in response to the last question as 'Complainant's Exhibit Reamer Type F.'

Mr. Lyon: Objected to as incompetent, no foundation laid, irrelevant and immaterial to the case.

(The said reamer so offered in evidence is marked as requested, together with the title of the court and cause and the date upon which the same was offered.)"

Surely, no "fuss" was raised by defendant then in the direction of requiring a new suit merely as to Type "F"!

We further find in the record the following discussion of the election with respect to Type "F" reamer, and it is to be borne in mind that we were at that time suggesting to defendant that he *permit* us to depart from the election and had not at that time made any move as to bringing the new bill [R. p. 449]:

"We cannot agree with counsel's statement that we have in any way whatsoever dismissed this suit as to any part of the patent sued under, *which dismissal would be a direct or overt act and not an indirect act*. We do not traverse his contention that we have made an election in *this suit*, but we call his attention to the fact that the bill alleging infringement of the patent generally, is to be presumed as *having been answered likewise generally*; that the election was not made until the taking of proofs commenced in the case, and after the bill was answered; and that no proofs have been taken on behalf of the defendant, so that it cannot be seen wherein the defendant can be taken by surprise, or can in any manner be prejudiced in meeting the *prima facie* case under the pleadings. As this patent has never been adjudicated, we believe proper that it be adjudicated as broadly and completely in this suit as it can be, *commensurate with such proofs of infringement of any part of it as may be produced,—*"

Further on this page it will be found stated:

"We shall be compelled, after pleading our *prima facie* case," (doubtless "pleading" should be "completing") "to petition the court for such relief, or to sanction such further ancillary procedure as may seem proper to *provide for full hearing on the question of infringement by this defendant at the final hearing of this court.*"

Further on page 452, record, will be found statement by counsel for complainant as follows:

“Manifestly it is proper at this time to deal with this exhibit” (Type “F”) “with respect to claims sixteen and seventeen, and upon the final hearing, we of course, shall not urge infringement of other claims of the patent, *or this* exhibit, unless so permitted by the court;”

(That is, other claims of the patent as to *any* exhibit.)

See also remarks of counsel for complainant on page 454, record. See also page 456, record, statement of counsel for complainant—

“Whether or not, further proofs may be necessary in this respect, we will determine and consider, after we shall have made application for such relief or right *to enlarge the scope of inquiry and proof*, which application will be made upon due notice.”

Counsel for defendant then stated same page, as follows:

“It is complainant’s option to file a new suit, or limit its alleged claim of infringement as indicated. If complainant desires to *extend its charge of infringement*, it cannot be done in this suit.”

Didn’t counsel for defendant know what he was discussing?

Now it will be borne in mind that all this discussion was *preliminary* to the filing of the new bill which commenced suit B-62. *In vain must counsel* for defendant search for any reference in the pleadings of B-62, first bill or amended bill, to Type “F” reamer or

any reamer *per se*. What was discussed on the record prior to that proceeding cannot limit the pleadings resultant upon commencement of such entirely new suit. Nor what was said on the record before the notice to defendant just prior to the proofs and after B-62 was filed. [See memorandum of ruling on rehearing, R. pp. 81-82-83-84.] Again, why did we omit claims 16 and 17 from B-62? They were in A-4. The pleadings speak for themselves, as do the order of consolidation and the order making the *prima facie* proofs those in B-62 as above discussed. It is true that commencing on page 512, R., and to page 518, R., subsequent to the filing of the bill in B-62 there was discussion, but this discussion was all brought about because of the inquiry on page 513, R., of counsel for defendant, as to the *proofs* pertinent to Type "F." These discussions did not at all limit the general purport of the pleadings of B-62 nor of the pleadings of the amended bill later filed in B-62. *They were had before the court dealt with the matter involved at all. No new statute had been established with the court's approval, as yet.* On page 521 of the record will be found this statement by counsel for complainant:

"such proceedings on such motion to consolidate being taken in view of the election by the complainant to stand upon claims 16 and 17 of the claims of the Wilson patent in suit,"—

Then follows the taking of depositions when counsel for defendant even failed to put in appearance, *and the very next reference we have to this matter* is the notice given on the record at pages 541, 542, *in the consolidated cause*, prior to the commencement of

proofs on behalf of defendant, and in which complainant gives notice unequivocally and without reference to Type "F" or any other type of defendant's reamers that complainant at final hearing would rely upon claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19 of the Wilson patent in suit. If any interpretation were required of the pleadings in B-62, and the court's orders after the bringing of same, for the assistance and education of counsel for defendant, certainly this notice was all the interpretation that defendant could require or could even ask without requiring. One so well versed in pleading as counsel for the defendant, cannot therefore even plead ignorance of the law or pleadings or ignorance of the intentions of complainant in these respects. The consolidated cause before the court at final hearing was the cause including the pleadings in B-62 and including the amended bill therein in which the reasons for departing from the election in A-4, *without any reference to any type of defendant's reamer*, were set forth as the reasons for bringing B-62. All of the types of defendant's reamers were brought into the consolidated cause by order of the court, and if ever there was a laboriously and consistently and plainly and frankly taken step it was that of complainant on application to the court to be relieved from the election, throughout the entire future proceeding, which election was made on the record in A-4.

What was said on the record either before or after the consolidation of A-4 and B-62 cannot limit complainant under the pleadings, as the opinion of the trial judge on rehearing finds.

Counsel in his each and every reference to the record of proofs, or to argument in trial court, or to brief by complainant before trial court, *cannot find a single concession* that we abandoned the right to prosecute any infringement coming within the claims including 9 and 19 of the consolidated cause. And as pointed out even defendant, by his silence and failure to speak out or move when this notice was given [R. pp. 541-542] of the full number of claims relied upon, acquiesced in and endorsed the procedure of complainant as to enlarging the scope of infringement as to all of the exhibits, and cannot now protest against the same. It will be found that in none of the minute orders annexed hereto and made by the Honorable Judge Bledsoe was there reserved to defendant the right to object at final hearing to the bringing of B-62, defendant's motion to dismiss B-62 having been finally denied. *Only the right was reserved to defendant to move at or before the time of trial to set aside the order of consolidation. This is what the notice in R. pp. 541-542 refers to.* This right defendant's counsel waived on the argument, where he said (as per official transcript of argument):

“The only contest we make on that is that, having gone into the question of the alleged further infringement in A-4, and under the election therein made, the complainant cannot split up his causes of action and divide them into different suits.”

He also says above that:

“Now, if the court please, in that connection we do not contest this order of consolidation on any ground whatever, save one, and that applies to

the bringing of this suit B-62 to the same extent as it does the order of consolidation,”—

Having followed that up by saying that the only contest defendant made was to splitting up the cause of action, defendant clearly abandons his right to object to consolidation, *inasmuch as consolidating the causes prevented the splitting up of the causes of action, if any, so that his objection was cured by the very consolidation to which of course he could not now therefore consistently object. He had no right reserved to object to the bringing of B-62!* Counsel further waived his right to object to the order on consolidation at or before final hearing, when he said at final argument:

“counsel need pay no attention to any portion of the proceedings on consolidation here save and except that one feature, and that goes to his entire right, under the record which will be read here, to maintain B-62 in any case.”

This objection was not reserved to him to make, and he thereby waived his objection otherwise to the consolidation. (See minute orders.)

It is to be said that while complainant had full knowledge of the infringement by defendant in making the Double Improved reamer, none of these reamers with the exception of that like the improved Double reamer and cutters and possibly Type “C” had come onto the market prior to the commencement of A-4. “D” and “E” and “F” had not. The defendant was more and more closely approaching complainant’s patented invention. Furthermore, complainant did not desire to prosecute his charges of infringement until the com-

plainants in the companion suit had commenced activity under their suit filed in 1908, which was dismissed for want of prosecution. It was not five months after taking of testimony was commenced in that companion suit, refiled, before the bill was filed in A-4.

We had a good cause of action in A-4 when it was brought, under the whole patent, and a good cause of action in B-62, and both causes were consolidated in a cause of action found to exist in the consolidated case. Of course as to any alleged concession or stipulation that the appellant's reamers did not infringe any claims under the Wilson patent except claims 16 and 17, that matter has been entirely disposed of above, and we specifically did not concede anything of the sort. That whole position was cured by the proceedings in B-62 on consolidation.

On the rehearing proceeding, there was annexed to brief for complainant a memorandum for complainant on settlement of decree at final hearing, signed by Frederick S. Duncan, Esq., who thus appeared on the brief and as of counsel for the complainant, in which capacity he signed such memorandum. This memorandum was prepared at request of complainant's counsel, by this able and experienced New York patent law practitioner, to whom by mail and wire a general outline of the situation pertinent to consolidation of causes A-4 and B-62 was submitted. We solicit Your Honors' kind consideration to Mr. Duncan's separate opinion containing many strong supporting authorities and further views on this question of the merger of the two suits and the attendant procedure. It may be stated that Mr. Duncan was of counsel in the important

Weed Chain Tire cases involving anti-skid chains used universally on automobile wheels, and prosecuted largely the litigation which established the patents on such devices. A few of the reported cases in which Mr. Duncan has appeared are as follows:

- Brickerhoff v. Holland Bldg. Assoc., 121 Fed. 1022;
- Brickerhoff v. Holland Trust Co., 146 Fed. 203;
- Curtain Supply Co. v. Keeler, 131 Fed. 871, 137 Fed. 911;
- Simplex v. Leonard, 147 Fed. 744, 148 Fed. 1023, 180 Fed. 763, 200 Fed. 581;
- Ironclad Mfg. Co. v. Orange Co. Milk Assoc., 138 Fed. 123, 202 U. S. 623;
- Chadeloid v. DeRonde, 146 Fed. 988;
- Chadeloid v. Daxe, 180 Fed. 1004;
- Chadeloid v. Thurston, 220 Fed. 685;
- Chadeloid v. Wilson, 220 Fed. 681, 224 Fed. 481;
- Parsons v. Victor, 164 Fed. 617;
- Parsons v. Times Sq., 168 Fed. 1023;
- Parsons v. Willis, 176 Fed. 176, 190 Fed. 333, 192 Fed. 47, 209 Fed. 227;
- Weed v. Excelsior, 179 Fed. 232, 192 Fed. 35, 223 U. S. 727;
- Parsons v. Seneca, 192 Fed. 46;
- Weed v. Pitts, 192 Fed. 41;
- Weed v. Atlas, 194 Fed. 448, 198 Fed. 399;
- Weed v. Cleveland, 196 Fed. 213;
- Parsons v. Asch, 196 Fed. 215;
- Parsons v. McKinnon, 196 Fed. 218;
- Parsons v. Foot, 196 Fed. 951;
- Parsons v. Channon, 203 Fed. 862;
- Weed v. Perry, 215 Fed. 921, 235 U. S. 698;
- Parsons v. Lewis, 230 Fed. 637.

Mr. Duncan's brief here follows:

"United States Circuit Court, Southern District of California, Southern Division.

Elihu C. Wilson, Complainant, vs. Union Tool Company, Defendant.

In equity.

Consolidated cases Nos. A-4-B-62. (Known as A-4 consolidated.)

MEMORANDUM FOR COMPLAINANT ON SETTLEMENT OF
DECREE AT FINAL HEARING.

STATEMENT OF FACTS.

B brings an infringement suit in equity by a bill referring generally to the patent and not specifying any particular claims or any particular infringing device. The defendant A answers denying the validity of the patent and infringement. When the taking of proofs commences, B having knowledge only of one infringing device made by A, which will hereafter be called device No. 1, announces on the record his election to rely on two specified claims of the patent. B offers in evidence A's device No. 1. As the taking of proofs progresses, B becomes aware of other infringing devices Nos. 2 and 3 made by the defendant A which devices B considers infringements of additional claims of the patent in suit as well as of the claims mentioned in the notice of election. B thereupon offers in evidence newly discovered devices 2 and 3. The pleadings in this suit were broad enough to cover any infringing devices and to cover any claims of the patent, but complainant's notice of election given at the commencement of complainant's proofs limited the suit to two claims above specified.

B then commenced a new suit in equity under the same patent alleging the pendency of the first suit and B's election therein to rely on the two claims specified. The second bill also alleges that other infringements had been discovered by B since the commencement of the first suit which devices infringe additional claims not specified in the notice of election in the first suit. The pleadings in the second suit are broad enough to cover any infringement of the new claims specified including not only the recently discovered infringements *but also the original infringement*. The difference between suit one and suit two therefore is that the bill in suit two specifies certain claims outside of those to which suit one was limited by complainant's notice of election at the commencement of complainant's proofs.

Then A moved to dismiss the second suit which motion was denied by the court. At the same time B moved to consolidate the two suits. The motion to consolidate referred to the second bill brought by B *as in the nature of a supplemental bill intended to bring into question infringement of the additional claims of the patent not specified in the notice of election in the first suit*. The court granted the motion to consolidate reserving to the defendant A the right to object at final hearing to the consolidation, the court directing that the *prima facie* proofs already taken in the first suit should be *prima facie* proofs in the second suit and gave defendant leave to answer the consolidated cause, which answer was in due time filed by defendant. B re-offered in the consolidated suit one of the exhibits previously offered in the first suit, namely, that form of defendant's device which seemed to B to infringe most

of the claims of the patent in suit (device No. 3). This re-offer was, however, a matter of extra caution and unnecessary inasmuch as under the order of the court, complainant's entire *prima facie* record in the first suit became part of complainant's *prima facie* in the second suit and *all exhibits offered in the first suit therefore became exhibits in the second suit*, including not only device No. 3 which was formally re-offered, but *also defendant's other devices including device No. 1*, which was the first exhibit to be offered in the first suit.

Before the commencement of defendant's proofs in the consolidated suit, complainant gave notice that he relied upon the two claims specified in the notice of election in the first suit and also upon the additional claims specified in the second bill and defendant's answering proofs were therefore taken with full knowledge that all of the claims were involved. Defendant also had full notice (1) that all of the defendant's devices offered in evidence in the first suit were charged with infringing the two claims there relied on, and (2) that all of the *prima facie* proofs in the first case became, under the order of the court, *prima facie* proofs in the second case and that therefore all of the complainant's exhibits in the first case were exhibits in the second case.

In due time the consolidated suits were brought to final hearing and an opinion filed holding all of defendant's devices to infringe claims of the patent in suit. A decree was ordered corresponding with the opinion. The defendant A, having waived its right to object to the consolidation of the two suits, attacks the bringing of the second suit by B and moves for a re-

hearing as to the scope of the decree. Apparently defendant takes the position that both suits should be dismissed and complainant be compelled to bring a new suit, or at any rate that only device No. 3 which was re-offered by complainant in the second suit can be made the subject matter of the decree and that the other devices which were offered in evidence in the first suit and which the court had found to infringe claims specified in the second suit cannot be covered by the decree.

DEFENDANT HAS HAD HIS FULL HEARING ON THE
MERITS AS TO ALL CLAIMS OF THE PATENT AND
AS TO ALL OF DEFENDANT'S DEVICES.

In spite of the many technicalities relied upon by defendant, the fact remains that the defendant has had his full day in court as to all of the devices which complainant now seeks to enjoin. Defendant has had full and ample notice prior to the commencement of its proofs that complainant relied upon all claims mentioned in its notice of election in the first suit and in its bill in the second suit. Defendant knew that complainant had put all of defendant's forms of devices in evidence in the first suit charging the same to be infringements. Also that by order of the court, complainant's *prima facie* proofs in the first case became *prima facie* proofs in the second case and that therefore all of complainant's exhibits in the first suit became exhibits in the second case. From the standpoint either of the first case or of the second case, defendant had full notice that all of its devices were involved and had full opportunity to present all defenses it desired in respect to any of the claims involved or any of the de-

vices referred to. Thus whatever technical questions may be raised, it is clear that in substance all the issues between complainant and defendant under all of the claims involved in either suit and as to all of the devices involved in either suit have been thoroughly tried and decided on the merits.

Under such conditions it would be a reproach to the administration of justice if when both parties had been heard upon the merits on all of the questions and those questions had been fully decided by the court, technical considerations should be allowed to interfere with the rendering of a decree in accordance with the decision reached and covering all points disposed of. It is not believed that any technical objection raised by the defendant will necessitate so inequitable a course.

EQUITY RULE 19 GIVES THE COURT FULL POWER TO
RENDER AN APPROPRIATE DECREE BRUSHING
ASIDE TECHNICALITIES.

At the time of the promulgation by the Supreme Court of the new equity rules, it was announced by that tribunal that one of the purposes of these rules was to do away with technicalities and to promote the speedy administration of justice and to render all decisions on the merits in the promptest manner and with the least expense. To that end forms of pleadings and other technical rules were to be abolished and the courts were given wide discretion to follow such procedure as would eliminate useless expense and technicalities and would enable litigants and the courts to arrive at final disposition of cases on the merits in the quickest and least expensive manner. One of the im-

portant rules adopted at that time was rule 19 reading as follows:

AMENDMENTS GENERALLY.

The court may *at any time* in furtherance of justice upon such terms as may be just, permit any process, *proceeding, pleading* or *record* to be amended or material supplemental matter to be set forth in amended or supplemental pleading. *The court at every stage of the cause* must disregard any error defect in the proceeding which does not affect the substantial rights of the parties.

This rule directly applies to the present situation. Both parties have been fully heard on the merits of the question whether the defendant's devices (Nos. 1, 2 and 3) infringe not only the two claims relied on in the first suit, but also the additional claims relied on in the second suit. Before defendant took any proofs it had full notice that all claims were relied upon and knew that all devices had been put in evidence. Defendant took such proofs as it desired on the claims involved and the infringements referred to and the court after a full hearing has decided all these questions of infringement. It certainly is now within the power of the court to disregard any technical objections and to enter a decree in accordance with its findings upon the questions that were presented to the court and have been decided by it. If necessary, the court may allow any amendment to the pleadings, proceedings or record, or the filing of any supplemental pleading that may be necessary or desirable to overcome any purely technical objection and permit the de-

cree to be rendered in accordance with the questions already decided on the merits.

Before determining whether any amendment of the pleadings, proceedings or record is necessary, certain considerations should be brought to the attention of the court.

COMPLAINANT WAS TECHNICALLY CORRECT IN BRINGING TWO SUITS UNDER DIFFERENT CLAIMS OF THE PATENT.

Defendant contends that two suits cannot lie at the same time by the same plaintiff against the same defendant under the same patent and therefore insists that either both suits must be dismissed or that only some partial decree can be made under one of the suits to the exclusion of questions involved in the other. While no doubt it is the usual rule and from many standpoints the desirable practice that any second claim made by a plaintiff against the same defendant under a patent under which a suit is already pending should be advanced by way of supplemental bill rather than by an independent suit, the courts clearly recognize that in appropriate cases a second suit may lie. In *Chicago Grain Company vs. Chicago R. R.*, 137 Fed. 101, Judge Sanborn stated:

“The question is thus presented whether a new independent infringement, not by a change or modification of the existing or non-infringing device, but by an entirely separate one, can be introduced into the case by supplemental bill or whether a new suit is not necessary.”

Throughout the elaborate discussion of cases that follows, Judge Sanborn recognizes the right to bring

a new suit, but finally decides that if complainant prefers to bring a supplemental bill, he should be allowed so to do because of the saving of time, expense and effort to the parties and to the court.

In *Walker vs. Miller*, 146 Fed. 249, the court recognizes that in some cases of new and independent infringement subsequent to the commencement of a suit, questions may arise of such nature that:

‘neither the master nor the court will feel justified in going into them and where the complainant may properly be put to at least a supplemental if not a new bill.’

In *Houghton vs. Whitin*, 161 Fed. 561, the court throughout the entire discussion recognizes the propriety of the complainant filing a new bill, if it so desired, but held that complainant was entitled to the quicker and less expensive procedure of a supplemental bill if it so preferred.

In *Johns vs. Wilson*, 180 U. S. 440 at 451, the court says:

‘While it is possible that the mortgagee might have been able to obtain relief by an amended bill in the original suit, a new action is a proper remedy where he has been mistaken in his facts.
* * * An amended or supplemental bill is rather an alternative than an only remedy, and a failure to pursue this course ought not to debar him from resorting to another bill.’

In this connection attention is also called to the ruling of the Supreme Court in *Leeds vs. Victor*, 213 U. S. at page 390, as follows:

‘Claims are independent inventions. One may be infringed, others not, and the redress of the patentee is limited to the injury he suffers, not by the abstract rights which have been granted him in other claims. One claim may be valid, all the rest invalid; invalid for the want of some essential patentable attribute. But what is good remains and is unaffected by its illegal associates. In such cases the patent does not stand or fall as a unity. If claims may be separable as in the case of infringement of some and not of others; if claims can be separable though some are invalid, may they not be separable when some of them have expired?’.

From this it follows that the several claims of a patent are independent and separable and give distinct causes of action which would entitle the patentee to commence different suits under different claims. Of course in most cases such procedure would justify the court in consolidating such suits, but such right on the part of the court does not militate against the privilege of the complainant to bring separate suits under separate claims.

It would seem, therefore, that the complainant in the present suit was justified in bringing the two suits under the same patent, the first having been limited by notice on the record to two claims and the second having been limited by the bill itself to certain additional claims therein specified. From the technical standpoint, defendant’s objection to the commencement of the two suits is not a good one and on the merits such objection was completely met by the action of the court in consolidating the causes by which order the

two suits were made one with no extra expense to the defendant than would have been involved in defending the original suit had the notice of election of claims been amended or had a supplemental bill been filed.

But complainant's rights on this rehearing are not dependent upon its right to maintain two separate suits under the same patent. Whatever objection might originally have been urged to such course was overcome by the order of consolidation.

THE CONSOLIDATION OF THE TWO CAUSES RENDERED
THE SECOND SUIT IN SUBSTANCE A SUPPLEMENTAL
PROCEEDING.

Of the court's right to consolidate two suits against the same defendant brought under the same patent whether involving different claims or different devices, there can be no doubt. Section 921 of the Revised Statutes as interpreted by the Supreme Court in the case of *Mutual Life vs. Hillman*, 145 U. S. 285 at 293, by the *Circuit Court of Appeals, 6th Circuit, in Toledo vs. Continental*, 95 Fed. 497 at 505 and 506, confers ample powers upon the court.

In moving for the consolidation, complainant indicated that the second bill was in the nature of a supplemental bill. The effect of the order of consolidation was to make that bill and all proceedings thereunder supplemental to the bill and proceedings in the original case. The order was to the effect that the two cases be thereafter carried on as one; that the defendant have leave to file a new amended answer covering the new matter introduced by the second bill, involving no doubt the right to further answer the matter set up in the original bill. The order further provided that the

prima facie proofs taken by complainant in the first case should become *prima facie* proofs for complainant in the second case.

THE COURT SHOULD RENDER A DECREE COVERING ALL DEVICES AND ALL CLAIMS INVOLVED IN EITHER SUIT.

Assuming that complainant at his election was entitled to bring the second suit under the same patent, then we have the situation of two suits under different claims of the same patent which suits were consolidated by order of court and thereafter proceeded as a single suit. The court can then treat these two suits as literally one suit and enter a single decree; or can treat the two suits as independent proceedings carried on side by side with evidence taken in either suit constituting evidence in the other suit and forming a single record upon which both suits were heard at the same time. In *Toledo v. Continental*, 95 Fed. Rep. 497 at 505-506 the Circuit Court of Appeals, Sixth Circuit points out that, particularly where suits against separate defendants are consolidated the two suits are carried on as separate proceedings although the evidence in one suit becomes evidence in the other and also points out that unless otherwise directed by the court separate decrees should be made in the two consolidated suits. But it is also clear from this case and from other similar authorities that where two suits by the same plaintiff against the same defendant are consolidated the court can properly treat the consolidated proceeding as a single suit and enter a single decree. Such procedure can properly be followed in the present case. If thought necessary, the court may amend the

order of consolidation so as to provide not only that the *prima facie* proofs in the first case shall constitute *prima facie* proofs in the second case, that the two suits are thereafter to proceed simultaneously with further proofs in the consolidated case constituting proofs in both suits and that the consolidated suit should be heard together, but also that a single decree should be entered in the two suits. It is not, however, thought necessary that any such amendment of the consolidation order should be made.

Assuming on the other hand that technically a second independent suit should not have been brought by complainant under the same patent as the first suit but that complainant should have filed a supplemental bill or should have amended his proceedings in the first suit so as to bring all of the claims into that suit, it none the less is clear that subsequent proceedings have cured any technical defect and that the court is entitled to enter an appropriate decree covering all devices found to infringe any of the claims. It has already been pointed out that when the complainant moved to consolidate the two suits he announced that the second suit was in the nature of a supplemental proceeding. In any event when the court granted the motion to consolidate the second suit became to all intents and purposes part of the first suit. Whether it be considered that the second bill was supplemental to the first bill or whether it in effect amended complainant's notice of election of claims in the first suit, is immaterial. The fact remains that before defendant was called upon to answer the second bill the two proceedings had in effect become one. The second suit had by order of court been

consolidated with the first suit, the *prima facie* proofs in the first suit had been made *prima facie* proofs for complainant in the second suit and it was ordered that thereafter the two suits should proceed together. The defendant was given leave to file an answer which defendant proceeded to do with the same force and effect as if answering a supplemental or amended bill. Before defendant commenced to take any proofs, complainant repeated on the record formal notice that complainant was relying upon all of the claims mentioned in the original notice of election and also in the second bill. Thus defendant was in no way prejudiced by the bringing of the second suit and its consolidation with the first suit. Defendant was in exactly the same position as if complainant had filed a supplemental bill in the first suit and defendant had obtained the usual leave to answer such bill, or if complainant had obtained leave to amend his notice of election of claims so as to specify the new claims involved and defendant had then obtained leave to make further answer as to the new claims.

The usual objection to the commencement of a second suit by plaintiff while the first suit against the same defendant was pending—namely the unnecessary duplication of expense and time both on the part of the litigants and of the court—does not exist in the present case, inasmuch as the order of consolidation has put the two cases in exactly the same condition as if the second bill had been strictly a supplemental bill. In substance, therefore, the order of consolidation rendered the second case a supplemental proceeding. If the exact wording of the order of consolidation

and of any subsequent orders made by the court does not designate the second proceeding as supplemental to the first, it is still open to the court under Equity Rule 19 to make any order *nunc pro tunc* that will amend the pleadings and proceedings in the first case or will designate the pleadings and proceedings in the second case as supplemental to the first so as technically to permit of a single decree in the consolidated suit covering all the claims and all the devices. It is hardly thought necessary, however, that any order of amendment be made inasmuch as the substantial effect of the order of consolidation was so clearly to render the second proceeding supplemental to the first, that the court can very properly enter a decree in the consolidated cases without further amendatory order. If the defendant is not satisfied that the course above suggested is in accordance with the spirit of the new equity practice as established by the recent rules and still insists that upon the observance of technicalities, it is to be pointed out that it is still within the power of the court with strict observance of all technicalities to enter a decree covering all of defendant's devices and all of the claims involved in either suit. The bill of complaint in the first suit is broad enough to cover any of the claims of the patent and any of defendant's devices. Complainant's notice of election of claims limited the proceeding to two claims. Had complainant before closing his *prima facie* proofs amended his notice of election of claims, either with or without order of court, and notified the defendant of complainant's reliance upon the two additional claims, the case could have proceeded, upon the same proofs as have now been

taken, to a final hearing which would have involved all of the claims and all of defendant's devices. What took place was that instead of amending the notice of election of claims, complainant filed a new bill specifying the two additional claims and moved to consolidate proceedings under the second bill with the first case which motion was granted. The order provided that further evidence taken in either proceeding should be evidence in the other. Before defendant commenced to take proofs in the consolidated cases complainant gave notice that he was relying upon all of the claims, including those mentioned in the first suit and those mentioned in the second suit. In the first suit complainant had put in evidence all of the devices now sought to be covered by the decree proposed by complainant. Defendant therefore took his proofs with full knowledge that all of the claims were relied on and that all of the devices were charged to be infringements. Technically speaking, if the defendant desires to deal with technicalities, the first suit and the second suit, though consolidated, still remain independent suits proceeding side by side with the same evidence and proceedings in one suit constituting evidence and proceedings in the other suit. *Toledo v. Continental*, 95 Fed. Rep. 497, at 505-506; *Mutual Life v. Hillman*, 145 U. S. 285 at 293. Thus the notice given by complainant just prior to the commencement of defendant's proofs that complainant relied upon all of the claims instead of the two originally specified in the first suit, *was a notice given in the first suit* as well as in the second suit and the evidence taken by the defendant in the consolidated case was evidence in the first suit as

well as in the second. When the combined cases came up for final hearing the record was technically a record in the first suit as well as in the second suit, though presented together and argued as one case. Technically speaking, the court had before it two cases. The first consisted of the original bill and a record that is technically complete and correct and involves all of the claims and all of the devices. The only possible question that can be raised is as to the complainant's second notice of election of claims which broadened the original notice from two claims to all of the claims finally relied on. It is to be noted however, that this second notice was given before defendant commenced to take any proofs and after complainant had put in evidence all forms of defendant's device. Furthermore the commencement of the second suit and the motion to consolidate had resulted in full knowledge on defendant's part that all of the devices and all of the claims were to be involved and when defendant proceeded with his answering proofs he was fully aware of the situation and was in no way prejudiced by the amendment of complainant's notice of election of claims. Thus it appears that the pleadings in the first case are broad enough to support a full decree covering all of the defendant's devices and all of the claims now relied on; also that complainant's *prima facie* case was broad enough to cover all of the defendant's devices and all of the claims, complainant having amended his notice of election before the commencement of defendant's proofs. Thus it is open for the court to enter a decree in the first case covering all of the claims and all of defendant's devices. If defendant still insists that the second

suit was improperly brought it can be disregarded and discontinued. No possible prejudice can result to defendant from such procedure as when all of the facts and proceedings are taken into consideration, it will be noted that the defendant has had full warning at all stages of the case as to the issues involved and was given full opportunity to make defense thereto.

In view of the fact, however, that in order to show the history of the first case and to explain the proceedings therein, the pleadings and orders in the second case should be kept for the court. It is thought that the court need not follow the more technical procedure suggested in the last preceding paragraph, but could enter a decree in the consolidated cases upon the same general principles previously outlined.

THE DECREE SHOULD COVER DEFENDANT'S ORIGINAL
DEVICE AS WELL AS MODIFIED DEVICES.

It is claimed by defendant that any decree rendered in these proceedings should cover only that form of defendant's device (No. 3) that was reoffered in evidence by complainant after the consolidation, and in particular it is claimed by defendant that the decree should not cover the original form of defendant's device that was the first form offered in evidence by complainant in the first suit. The defendant's device No. 1, was not found to infringe in the two claims originally sued on in the first suit and defendant argues that a decree in the second suit at most could cover only the modified device No. 3 and should strictly be limited to the one device No. 3 that was reoffered by complainant.

This argument fails in several particulars. In the first place device No. 1 and indeed all modifications of that device were offered in evidence as part of complainant's *prima facie* proofs in the first case and the order of consolidation of the two cases made these *prima facie* proofs *prima facie* proofs for complainant in the second case. Thus all of the exhibits in the first case including defendant's original device No. 1 and all of the modified devices *became part of complainant's proofs in the second suit* and were therefore before the court for consideration and decree in the second suit.

In the second place as has already been pointed out, the order of consolidation made the second suit and all proceedings thereunder in effect supplemental to the first suit and proceedings therein. Before the commencement of defendant's proofs, *complainant gave notice that all the claims were relied upon* and as all defendant's devices had previously been offered in evidence, it necessarily followed that in the consolidated suit all claims were involved and all forms of defendant's device. It is therefore open to the court to make any appropriate decree in the two suits as consolidated, the power of the court to make a single decree in the two suits having previously been pointed out.

Finally as has above been suggested, the consolidation of the two suits and the notice given by complainant that all claims would be relied upon in effect amended complainant's original notice of election of claims in the first suit so that in the first suit (as well as in the second) all claims were involved. As all forms of defendant's device had been offered in evidence in the first suit, the court is at liberty in the first

suit to enter a decree under all of the claims and against all of the devices.

From any standpoint, therefore, all forms of defendant's device that have been found to infringe should be covered by appropriate decree.

SUMMARY.

Complainant's position may be briefly summarized as follows:

Irrespective of technical objections, it is clear that defendant has had his full day in court. That with notice that all claims were to be relied on and that all forms of defendant's device were charged with infringement, defendant presented his full defense and the court passed upon all these questions on the merits. A decree or decrees should therefore be rendered on the merits covering the points actually litigated and decided. If any amendment of any of the pleadings, orders, proceedings or record be necessary to enable the court to enter an appropriate decree, the court has such power under Equity Rule 19. Under the same rule

'the court at every stage of the proceeding must disregard any error defect in the proceeding which does not affect the substantial rights of the parties'

It is believed that there has been no technical error or defect for the following reasons:

1. Technically complainant was entitled to bring two suits under different claims of the same patent. See cases above cited and discussion of the same. A consolidation of such suits was within the discretion of the court and relieves the situation of any charge of hardship upon the defendant by involving extra ex-

pense, etc. Under the consolidation it is within the discretion of the court either to make a single decree in the two cases covering all of the claims and all of the devices or to render separate decrees in the two cases dealing with the two original claims in the first case and with the additional claims in the second case. As the parties are the same in both cases, a single decree would seem preferable.

2. If technically complainant should have brought a supplemental bill or should have amended his original notice of election of claims in the first case instead of bringing a second original bill, any objection to such course has been cured by the consolidation of the two cases which practically made the second suit and proceedings thereunder supplemental to the first. There has been no possible prejudice to the defendant by such procedure either in loss of time or in expense. All the issues under all of the claims as to all of defendant's devices have been thoroughly tried and have been decided by the court. The court has power under Rule 19 to disregard any technicalities and to enter any orders of amendment as may be necessary to bring about a decree on the merits.

3. If strict technicalities are to be observed, the court can properly hold that complainant's notice in the consolidated suits to rely upon all of the claims was a notice in the *first* suit (as well as in the second) and amounted to an amendment of the original notice of election of two claims in the first suit, thus broadening the scope of the first suit to cover all claims (the pleadings being broad enough to support a suit of that scope). All of defendant's devices had been offered in

evidence in the first suit. Defendant's answering proofs were necessarily proofs taken in the first suit as well as in the second suit. Therefore the record in the first suit would justify a decree as to all of defendant's devices under all of the claims including those specified in the original notice of election and including the defendant's device No. 1 originally put in evidence in the first suit.

4. Inasmuch as all issues have been presented under one bill of complaint or the other and inasmuch as a consolidation of pleadings and proceedings was had and full notice given to defendant that all claims would be relied on and all devices charged with infringement, which notice was given before defendant took any proofs, defendant has been in no way prejudiced by the proceeding and has had full opportunity of trying out all questions on the merits. Whatever may have been the particular form of proceeding, the substance was that the original bill was amended by a supplemental bill and proceeding and that the two proceedings went forward as one and all issues were fully tried and have been decided. Under these circumstances the court, under Equity Rule 19, is certainly entitled to enter an appropriate decree or decrees and such decree should cover all forms of devices that have been found to infringe any of the claims.

Dated, N. Y. July 10th, 1916.

Respectfully submitted,
(Signed) FREDERICK S. DUNCAN,
Of Counsel for Complainant."

Further on this question of appellee's position before the court at the trial and argument in this consolidated cause, we quote the following statement before the trial court:

“So we now come before the court with claims 2, 4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19.

“The Court: You are still insisting on all of those claims?

“Mr. Blakeslee: Yes. Upon the records in this court as they stand today.”

Even the proceedings and pleadings in B-62 alone, and apart from the order of consolidation, were and are sufficient to warrant the findings of infringement by all the Double Improved reamers and the several types thereof decreed in that case. Your Honors' attention is directed to the brief by counsel Duncan *supra*, in which these aspects of the situation are unanswerably dealt with:

“The complainant made assurances doubly sure by not only giving such amended notice of election *prior to the commencement of any proofs on behalf of defendant*, but by reinforcing such amended notice of election by a carefully worked out and judicially endorsed procedure by which automatically and unfailingly any limitation of the issues to merely claims 16 and 17 has been wiped out and supplanted by a well founded charge of infringement as to any devices of defendant before the court, of the full group of claims relied on including claims 9 and 19.”

As to any presumptions or errors of judgment or perception which appellant may have indulged in or

gone astray with, these have nothing to do with the ironclad terms and effect of straight, clear, plain pleadings and notice. The unmistakable nature of the pleadings and notice are the best evidence of the intentions of the party perfecting and giving them. Counsel cannot escape by throwing ink like the squid, for he is entirely surrounded by an unbroken net of pleadings and notice as to this consolidated cause and the charge of infringement and proofs therein.

Types "C," "D" and "E" were brought successively into the case as the record shows, and when they were followed up by the later Type "F," the scope of infringement became glaringly larger even as to the prior types, and the necessity arose for the pleadings in the amended bill in B-62, to the effect that complainant had discovered *since the commencement of taking proofs in A-4* that defendant had further and more elaborately infringed;—such *discovery* pertaining to the original improved type as well as these later improved types which culminated in Type "F." We never conceded that there was no infringement as to any claims of the patent, and certainly it is equity to perpetuate injunctive relief against all the infringements found in in this case. To allow appellant to use Wilson's invention and punish Wilson's company for infringing in the companion suit, *supra*, would be distorted equity.

In conclusion we may say that the subjects of claims 9 and 19 are clearly found in each one of defendant's improved reamers, including Types "D" "E" and "F," performing the same offices or functions in substantially the same way and to produce the same results and ob-

tain the same benefits *insofar as the novel entities therein claimed and pirated by defendant are concerned.*

We do not anticipate that Your Honors, because of any cured technical defect that *might* once have existed in the pleadings will allow appellee to go away from this court empty-handed in this cause, when defendant has wilfully and extensively, and in many forms of its product, taken vitally claimed parts of the Wilson invention and built them into its product. Merely including Type "F" in the decree would be excusing and whitewashing the defendant as to the major portion of its infringement of the *same kind as found in Type "F," though not as extensive as we contend.*

The complainant has a patent for an invention which the trial court has found valid and unanticipated. The court has found that the Double improved reamers, and Types "D," "E" and "F" infringe claims 9 and 19 of this patent. There can be no doubt that the defendant so infringed with its eyes open, knowingly and wilfully. The proceedings thoroughly and elaborately provided for including in the decree all the findings of the court as to infringement by this defendant's devices, which pleadings were elaborated because of the unusual tactics of the defendant on the record, and the questions raised at the eleventh hour by appellant were decided against it on rehearing. The record contains a timely amended notice of election, and rules 19, 26 and 34 make appellee's procedure proof against merely technical contrary-to-equity attack.

Replies to Scattering Misstatements, Misrepresentations, and Misleading Matter in Appellant's Brief, With Further Important Points Suggested Thereby, All Deemed Highly Important.

While we have generally, and, we believe, fully and thoroughly presented appellee's case in this brief, there are specific statements made in appellant's brief which require challenging, because of their inaccuracy and their misleading effect. We have had occasion before, in dealing with briefs of appellant's counsel, to categorically deny or correct such statements, as it seems to be a general mental attitude of counsel's to indulge, for some reason or other, in such distortion or misrepresentation, in an endeavor—at times more or less cleverly—to create an effect contrary to the facts and law of the case.

We have thoroughly, and, we believe, effectively disposed of this attenuated technical defense of appellant pertinent to the commencement of cause B-62, which was consolidated with cause A-4. Certain statements on that side of the case, however, require challenging and correcting.

Appellant states, at the top of page 4, that defendant has been manufacturing underreamers alleged to infringe since 1905. As defendant was not in existence prior to 1908, this statement is absurdly in error.

In the second paragraph on page 5, and also in the last paragraph, and at several points thereafter, appellant makes the statement that appellee *conceded* that no other claims than 16 and 17, on the cutters, were infringed by defendant. We have previously

shown that there was no such concession and that, on the contrary, the charge of infringement of other claims was not waived, *but merely was not asserted* in A-4. The record shows, as we have pointed out, further, that when this suit was commenced infringing reamers "D," "E" and "F" had not been produced, so that counsel is in error in paragraph 3 of page 5.

The portion of page 7 in italics is seen to be absurd, as thoroughly treated of hereinbefore.

At the bottom of page 7 we again find a reference to an alleged period of manufacture by defendant which would carry back years before defendant was incorporated.

In the paragraph at the bottom of page 8 we again find a statement that complainant stipulated that only claims 16 and 17 were infringed. Counsel can find no such stipulation. As the trial judge well said, no binding nonsuit as to the claims other than 16 and 17 was effected by the original election *on the record in A-4* as to these claims.

In the sentence beginning at the bottom of page 8 and terminating on page 9 counsel makes a singular statement with reference to counsel for appellee. Counsel for appellee did not become associated with this reamer litigation, in either this suit or the earlier suit, until September, 1912. Prior to that time appellee had never employed patent counsel in either of these actions. It was not until after counsel for appellee was retained that appellee received the advice, by such counsel then given him, that appellee had a good cause of action against appellant under appellee's patent in suit here. And inasmuch as appellee's counsel was almost exclu-

sively engaged in and about the litigation in the other suit under the Double patent from the time he was retained until the bringing of this suit, the full extent and scope of the infringement by appellant in this case did not strike him and was not realized by appellee's counsel at the time this suit was filed. It was not until appellee's counsel had the leisure and opportunity to thoroughly analyze the Wilson patent in suit here and to apply it thoroughly to the completed proofs in the other suit and the evidence taken therein, and well toward the end of the taking of the *prima facie* proofs in this case, that counsel for appellee became aware of the range and extent of the appellant's piracy of the Wilson invention. This was brought home forcibly to him upon the appearance in the market of the Type "F" reamer. And then and there, as we have hereinbefore shown, appellee's counsel put into operation the necessary machinery for elaborating and enlarging the scope of the charge of infringement, as by the bringing of B-62. *Prior to such opinion given by appellee's counsel, appellee had never had or received an opinion from patent counsel pertinent to the infringement charged and proven in this case. His attention had been devoted to the earlier suit brought against his company under the Double patent; and his original attorneys in that case, able as they were in general practice, and who left the entire conduct of that case, after commencement of proofs, to appellee's counsel here, had never appreciated the infringement charged in this case and had never advised appellee that such infringement existed. The erroneous statement of appellant's counsel last referred to makes it most apropos*

to call the attention of Your Honors to this situation, which so consistently and fairly and fully further enlightens as to the procedure taken in connection with the suit B-62.

Referring to the paragraph next to the bottom of page 10, there was no finding in the decree that the original bill of complaint be dismissed. As a matter of fact, there being but one cause before the court, namely, the consolidated case A-4, it would have been impossible to dismiss that bill. The court will note that there is only a single decree in this case, and that is as to the consolidated cause A-4. [R. p. 85.]

Counsel suggests, in the third paragraph on page 11, first part, procedure which on its face is absurd, and is merely an attempt to blur the clear-cut procedure that was had on the consolidation. What occurred was merely a finding of non-infringement of the claim elected on the record in A-4. There was no dismissal, and could be no dismissal, of any part of the consolidated case. There was only one hearing, and all the enlarged issues were properly disposed of in one consolidated suit.

We quote here further from the memorandum of ruling on rehearing [R. p. 81]:

“That which was said by counsel for complainant after the commencement of B-62 is more reasonably explained by giving effect to the following considerations:

The main purpose in bringing B-62 was, doubtless, to determine the question of the infringement, by Type “F,” of several claims of the patent withdrawn from

consideration in A-4, by the election therein made by complainant to rely entirely on claims Nos. 16 and 17. Further, such statements were rather made as statements of what had been done and said theretofore in A-4 than as announcements of what it was proposed to do in B-62.

Nothing short of a clear, unequivocal election to withdraw or discontinue the suit as to alleged infringements set out in B-62 would suffice to narrow the issues thereby tendered. The discontinuance in A-4 as to other claims—which was worked upon the election to stand upon claims 16 and 17—did not have the effect of a judgment upon the merits, or any other than that of a voluntary non-suit. [73]

It is not necessary to determine the effect which such election would have had if A-4 had gone to final judgment before B-62 was begun and the consolidation with A-4 ordered. Counsel for complainant having withdrawn by the election, part of his claim for infringement, had a right to withdraw such election, and the rights of the defendant growing out of the election and the proceedings subsequent to such election and prior to notice of its withdrawal, would give no ground for denying complainant's ultimate right to again broaden the issues. The only effect of such election and the proceedings thereafter and prior to notice of its withdrawal, or amendment of election, would be to give the defendant, under certain circumstances, a right to the imposition of terms and the right to demand an opportunity to further cross-examine the complainant's witnesses, theretofore testifying. The defendant having made no demand for such opportunity, must be held

to have waived the same, and, in consideration of the scope of the cross-examination, the court feels that it was in no way prejudiced thereby.

It is probable if any of the witnesses already examined—whose testimony was relevant to the broadened issues—had died, the testimony of such witness would have to be stricken, or the first suit abandoned and a new one brought. But the court is not called upon to decide such a question. Insofar as any question of splitting this cause of action is concerned, that matter was foreclosed by Judge Bledsoe's order denying the motion to dismiss B-62."

Referring to the bottom of page 12, appellant indicates that he could see no essential structural differences in principle between Type "F" and the other types. That being the case, he must have appreciated that the bringing of B-62 was mainly to enlarge the issues as to *all* the exhibits.

And so on through all the drift of counsel's attempts to save the skin of the appellant by haggling over the four-times-approved-and-endorsed proceedings on consolidation of A-4 and B-62, the lurid and unilluminating character of which, through to page 41 of the brief, will doubtless be impressed upon Your Honors without the necessity of further waste of time and space.

There is one further statement on page 12 of appellant's brief which is apparently meant to confuse the court, namely, that no claim in the Wilson patent covered assembling from the bottom. This assembling at the bottom, as well as the possibility of remachining the body, was made possible by reason of the "pronged"

construction, as in case 2, *supra*, and this prong construction is clearly covered by the several claims of the Wilson patent, as hereinabove discussed, as is the detachable cross-piece, one of the elements of claim 8 of the Wilson patent. Of course, Wilson did not claim *result*, and if his patent had claimed same, appellant's counsel would be the first to attack it as functional. But appellant cannot assemble as does the Wilson reamer and permit remachining *by using* Wilson's *invention*, and fail to infringe.

Counsel states that the Jones removable bowl reamer was not an abandoned experiment. We quote now from the testimony of Jones himself, the inventor, which conclusively proves it was a mere ephemeral device, short lived, and entirely superseded by later reamers and even abandoned by Jones in the Patent Office. The testimony is as follows [R. p. 791.]:

“Q. 114. Why was it, Mr. Jones, that you discontinued the manufacture and sale or rental of underreamers like Defendant's Exhibit Fred W. Jones Reamers, Types 1 and 2?

A. The principal reason was that there wasn't any sale for them.

Q. 115. And why was there no sale for them found?

A. I suppose the reason was they had to come into competition with other underreamers which could be sold cheaper.

Q. 116. Among which was the reamer manufactured by the Union Oil Tool Company at that time?

A. Yes, and others that were on the market besides that.

Q. 117. Did you at any time file an application for letters patent of the United States upon either of these types of Jones reamer like Defendant's Exhibit Fred W. Jones Reamer Type 1 or Defendant's Exhibit Fred W. Jones Reamer Type 2?

A. On Type 2" (removable bowl reamer) "the application was filed.

Q. 118. Can you give the date upon which such application was filed and the serial number of such application?

A. July 14, 1902, Serial No. 115,608.

Q. 119. Was a patent ever issued to you on that application?

A. No."

So this Jones device was rendered obsolete even by the Double old style reamer, which the Wilson invention has in turn rendered obsolete; so that the Jones device is not even related to the Wilson invention by *possibility of competing use*.

The drawing of this application is shown at record, page 1095. This shows conclusively that the reamer could not be completely assembled and disassembled at the bottom, and that a middle joint was provided as shown at the screw threads "O."

Could stronger evidence as to this being an abandoned experiment be produced than the testimony of the inventor himself and the record of the application which died in the patent office? Not only was this reamer abandoned, but the application for patent for the same was abandoned.

This should remove this Jones reamer from any consideration in this case, as having any anticipatory or other value in this case.

If this court will recollect or refer to previous decisions supporting counsel for appellant's contentions as to the iniquity of such abandoned experiment defense, as in *Parker v. Stebler*, 177 Fed., and if the court shall at the same time have under consideration the companion cause, the suit under the Double patent, and have presented to it therein the attacks made in the lower court by counsel as to reamers such as the O'Donnell & Willard reamer, which reamer counsel contended was abandoned, it is believed that the weakness of appellant's case on the prior art side will be even more pitifully striking.

Counsel glibly states, on page 45, that the Wilson reamer comprises four features. *There is not a claim in the Wilson patent for these four features broadly, and there could not be.* The same features were present in the prior Swan [R. p. 998] and O'Donnell & Willard [R. p. 1004] patents, which were prior likewise to Defendant's Exhibit Double Patent No. 1. These features broadly could not be claimed by Double any more than Wilson claimed them. The features, of the invention, it is true, were built around these necessary elements, which had been used in the art from time immemorial. One might as well say that any patented automobile comprises a body, steering gear, wheels, and a motor, or any patented churn a vessel and a dasher; or any patented aeroplane a body and wings.

The last paragraph on page 45 is entirely misleading. The court will find that the open slipway at each side

was old in the Swan patent in evidence and was not original with Double. It was old in the Jones round-nosed reamer in evidence in the companion case, and likewise in the Mentry patent and the Yorke patent, which are in evidence in the companion suit; and if this statement goes a little outside the record, it is certainly not as wide of the record as the statement of counsel at which it is directed, and *is* the truth.

Counsel's statement at the bottom of page 54 is entirely erroneous, as we have previously indicated. Particularly at this point we would emphasize again the fact that the provision of the Wilson lug construction in the infringing reamers and of the co-operating shoulders on the cutters, transferred the inthrust bearing point of the defendant's cutters down low on the body instead of up on the shank, as in the Double Patent No. 1 and the old style Double reamer. This took considerable of the strain off the weak shank of the Double cutter, and likewise lessened the leverage upon the Double cutter at its weakest point, namely, the V-shaped notch across the back of its shank. It also, in reducing such leverage effect, removed a great deal of the outthrust strain of the cutter shanks upon the ways, and thus limited the danger of breaking out the dovetails or ways, as well as avoiding breakage of the cutter shank. It is to be noted that this was accomplished by the adoption of the Wilson lug construction at the lower end of the body, and the further adoption of the shouldered cutters with the bearing faces 4³ on the shoulders.

On these points see the following testimony of W. W. Wilson [R. p. 272]:

“The bearing face on the inside of the old style Double underreamer cutter differs from that of the new style Double underreamer cutter” (Double Improved and cutters of infringing reamers) “in that it is wholly and entirely upon the shank of the cutter in the old style, while in the new style this bearing face has been brought down so that it is largely upon the inner face of the body of the cutter and extends outward upon the laterally-extended portions of the cutter body.”

Also [R. p. 273]:

“The body of the cutter in the Double Improved underreamer cutter extends laterally considerable distance beyond the outside edges of the dovetails on the shank of the cutter, thus producing a definite widening of the cutter body as compared with the shank. The placing of the cutter-expanding bearing down upon the body of the cutter permits a more stable supporting of the cutter against the underreamer body or parts thereon than is the case in the old style Double underreamer cutter where the same is placed upon the shank solely. The increased width of the cutter caused by widening of the body of the *improve* Double underreamer cutter makes a better underreaming cutter than the old style, for the reason that it embraces more of the circumference of the circle produced thereby.”

Also answer to question 32 [R. p. 274]:

“The length of life of the improved Double underreamer cutter is greater than that of the old style Double underreamer cutter for the reason that there is

less chance for breakage of the improved cutter, due to the fact that the cutter-expanding-bearing is placed down upon the body of the cutter, thus better supporting the cutter against sidewise rotation, and also relieving a great amount of strain from the cutter-shank when in reaming operation by reason of the fact that the cutter-faces are braced against collapsing at a point more nearly in line with the pressure exerted thereon.” * * *

See also answer to Q. 35 [R. p. 276]:

“* * * The cutter-expanding faces on both cutters” (Wilson and Double Improved) “are placed on the upper inner face of the cutter body, and in both cutters extend to the widest dimensions of the cutter body. In both underreamer cutter a large amount of metal is present in the body part of the cutter as compared with that in the shank.”

This modification by defendant of its cutter structure is further evidence of the extent to which defendant went in reorganizing the Double reamer to include the Wilson invention and to include with, and co-operating with, such modified cutters another basic feature of the Wilson invention, namely, the lug element, which lug element made possible the utilization of such strengthened, braced and reamer-strengthening cutters.

We have hereinabove pointed out to what full extent defendant has appropriated and used the advantages incident to the use of the Wilson invention, and have elaborately quoted the law to the effect that the inventor is to be protected as against the piracy of his invention for the enjoyment of any of the advantages

thereof, either known or not known, or recited or not recited, by the patentee at the time of filing his application. The fact that defendant did not in its practice draw upon the full fund of the Wilson invention does not enable it to escape from a finding of infringement. That finding would be proper if any one characteristic or phase or part of the Wilson invention, with any advantage attaching thereto, were appropriated by defendant. This is true regardless of whether or not such advantage or purpose of use is found recited in the patent.

Counsel for appellant has attempted to confuse Your Honors and to distort the facts, as for instance on pages 54, 55, *et seq.*, by making it appear that claims 9 and 19 are to be limited by any limitation introduced within claims 16 and 17 in the prosecution of the same in the Patent Office. Manifestly claims 9 and 19 are not in any sense so limited. These claims are for *combinations of elements*, and each of these elements is to be broadly considered in the combination, which combination claims, as in *Yesbara v. Hardesty*, 166 Fed. 120-125, *supra*, are to be construed as entities irrespective of their specific features. If one had a patent for the first vehicle, comprising, in combination with a body and wheels, steering means for changing the angular presentation of the wheels, such claim would not be limited by a further claim in the patent *for the specific construction of one of the wheels*. The “shouldered” cutters are the cutters having lateral shoulders the inner faces of which are the bearing faces 4³. This is clearly specified in claim 19. Counsel would have it that the “shoulders” are the “rounded corners or bear-

ings 16" which are merely the upper terminal portions of such shoulders. These rounded bearings, which are specifically found in the infringing reamers as in the upper angular corners or bearings at the upper portions of the lateral shoulders, which upper corners engage with the prongs at the lower ends of the lugs and ride upon the lugs, as the expansion is effected, are not the "shoulders" of the patent in suit. Claims 16 and 17 have "shoulders" which are manifestly the lateral projections at the sides of the shank. This is clearly shown by the File Wrapper and Contents of the Wilson patent. We repeat that the specific form of the shoulders and the relation of the shoulders to the shanks of the cutters, whatever may be the proper interpretation under claims 16 and 17, has nothing to do with the interpretation of claims 9 and 19 or of any other claims in the case, which are for a combination of features including cutters, inasmuch as such claims are to be considered, as above pointed out, as for *entities*, irrespective of the particular characteristics of the component parts. To read into claims 9 and 19, for instance, any limitations proper to claims 16 and 17, would be in effect to limit Wilson's whole invention to the mere subjects of claims 16 and 17. *This is manifestly an absurd proposition, for the lug elements 2' with the spreading-bearings 9 thereon, and the combination of such parts with the cutters, were factors broadly new with the Wilson invention.* Furthermore, to limit these basic and novel features of this invention by reading into these claims the collapsion of the cutters between the prongs is to disregard the adaptability of the invention, as in the infringing structures, to reamers in

which the many other advantages of these features are found, irrespective of the swing in of the cutter shanks between the prongs. The opinion of the trial judge is significant on this point [see R. p. 79]: .

“The fact that defendant did not appropriate the, perhaps, relatively more important conception of Wilson, whereby the cutter-shanks were allowed to collapse between the prongs, does not excuse it, or take from the infringement it has practiced, for the seat or bearing of the cutter-head on these faces, or lugs, is not dependent upon the swing in collapse of the cutter-shanks between the prongs.”

See also same opinion [R. p. 78]:

“In the so-called ‘Double Improved’ underreamer and in Type ‘F,’ with the interposed block in position, a lug at the lower end of the reamer body appears and, with the block removed in Type ‘F,’ two lugs appear, in relatively the same position and with relatively the same bearing faces as those upon the lugs of the patent in suit.”

It is immaterial, therefore, from considerations of appropriation of the Wilson invention, whether the lugs 2' with their spreading-bearings 9 be spaced apart or separated, or whether these lugs are connected by a web or interposed portion, inasmuch as the invention pertains to the provision of such lug or lugs and the co-operation therewith of the shoulders upon the cutters.

As said in *Stebler v. Riverside Heights, etc., supra*, it is immaterial whether there be an addition or whether there be an omission provided the substance of

the invention is taken. Therefore, to add this connecting web or interposed part between the lug portions with which the shoulders co-operate, is merely adding something to the invention of Wilson and does not in any sense change the character of the infringement.

We insert at the front of this brief cuts of the Type "F" infringing reamer body (that with the bolt 11), and of the Double Improved Infringing reamer. The "prong" features and formations and parts and adjuncts are clearly shown here, being shaded heavily in the "Double Improved" reamer, the features of which are present in Types "D" and "E" also. The reference characters of the Wilson patent in suit are applied to these cuts, showing infringement.

It is, however, important to note in this connection that in the so-called Double Improved underreamers, namely, the underreamers found to infringe and not specifically designated as either Type "D" or Type "E" or Type "F," defendant actually subdivides the inner bearing portion or surface or face upon its cutters, so as to space them apart as clearly and distinctly as the shoulders with such bearing faces 4³ can be said in any sense to be spaced apart by the shanks of the cutters in the Wilson patent. Even in that connection an inspection of figures 8 and 9 of the drawings of the Wilson patent establish the fact that these bearing faces 4³ are not entirely separated by the shank, but only the upper portions of such bearing faces. That is one reason why we contend that infringement of claims 16 and 17 should have been found. For, even if those claims are to be so construed as to provide that portions of the bearing faces 4³ are

separated by the cutter-shank, the defendant appropriated the invention as expressed in these claims 16 and 17 in as far as it provided these bearing faces not so separated, corresponding with the portions of such bearing faces not so separated in the Wilson patent. But, in the so-called Double Improved reamers, which the statement of defendant on accounting in this case shows amounted in number to fully four-fifths of all the underreamers ever made by this defendant, the bearing faces of the shoulders of the cutters were definitely demarked each from the other and physically separated by a groove extending lengthwise of the cutter, and, therefore, distinctly separated bearing faces were provided on these shoulders which co-operated with separated lug surfaces on the body. In other words, as to the co-acting portions of these bearing faces on the cutters and the lug surfaces, there were distinctly separated zones co-extensive with the length of such groove. These formations, and the purposes attaching to such formations and arrangement, are clearly shown by the testimony of E. C. Wilson and W. W. Wilson at the following places in the record:

Answer to Q. 326 [R. p. 251]:

“The groove at the back of the Double underreamer, Complainant’s Exhibit Improved Double Underreamer, partly divides that bearing into two separate bearings or faces. In that regard the grooves produce a similar result with the Double underreamer-cutter, improved type, that is produced on the Wilson underreamer as shown by the drawing figure 9, Complainant’s Exhibit Wilson Underreamer Patent, by leaving a portion of the body intact and interposed between the two bear-

ings 4³. It will be clear that in each case a portion of the face or bearings at the backs of the cutters are divided into two separate faces.”

Defendant would make it appear that this groove was necessary in order to accommodate an Eye-bolt to be passed through a hole in the bottom of the Double reamer-body and engaged with the spring-actuated rod for the purpose of pulling down the rod preparatory to attaching the cutters and assembling the reamer. On that head see the following testimony of E. C. Wilson:

Answer to Q. 331 [R. p. 256]:

“The grooves are not necessary in order to insert the eye-bolt in place in the spring-actuated rod or mandrel.”

See also the testimony of defendant’s “expert” Griffin [R. p. 707] as follows:

Answer to Q. 170: “I would say in my interpretation of claim 16” (Wilson reamer patent) “that ‘an underreamer-cutter having two shoulders and a bearing face on the inner side of each of the two shoulders of the cutter,’ that the “Complainant’s Exhibit Wilson Reamer Cutter has the two shoulders, and it has a face on the inner portion thereof that is not used.”

In correspondence to this admission we find the faces of the bearing surfaces at the sides of and separated by the groove in the Double underreamer-cutter, as inner bearing faces.

Quoting from W. W. Wilson’s testimony on this matter, his answer to Q. 31 [R. p. 273], is as follows:

“The bearing face or expansion bearing at the back

of the cutters differs from the old style Double underreamer cutter from that of the new or improved style Double cutter in that there is a partial cutting away on this face on the improved underreamer cutter near the center thereof *in* a vertical line, by means of a rounded cavity which divides its bearing-face into two parts, while upon the old-style underreamer cutter no such notch appears.”

Answer to Q. 40 [R. p. 281]:

“The same open space between the prongs on the cutter body of the Wilson underreamer permits a contracting of the cutter with the body only as two separated portions on the Wilson cutter. The same action is accomplished in the Double underreamer by providing a notch in the center of the cutter body on the inside which notch divides the spreading-surface into two separate parts.”

Answer to XQ. 201 [R. p. 343]:

“This notch permits access of a threaded bolt to the spring-actuated rod or mandrel for the purpose of drawing the cutters down and of relieving the strain on the key, so that it may be withdrawn. Also, it serves to remove the metal at the center of the thrust-bearing, which, in case rocking occurred would tend to pile up and form a fulcrum point on which the cutter would rock.”

XQ. 202 (By Mr. Lyon) [R. p. 344]:

“Then do you understand that in the so-called Double improved reamer such a groove is necessary in the thrust-bearing of the cutter to enable such underreamer

to expand and contract the bits in accordance with their normal mode and principles of operation?

“A. Yes, sir.”

This testimony emphasizes the fact that the defendant appropriated the Wilson invention, among other reasons, for the purpose of preventing rotatory action of the cutters which tends to break the co-engaging dovetails or the shoulders on the cutter-shanks and the body, namely, the shoulders 4² and shoulders 2”.

Another reason why this groove was provided in the inner bearing face of the Double improved cutter, to divide this bearing face into two separated portions, is that it removed the inward or crushing strain of the cutters from the zone of the lug element through which the hole is provided, which hole accommodates the lower end of the movable spring-actuated rod. Without such groove, inward crushing strain applied at this point would tend to flatten out the formation of the hole in effect so that the spring-actuated rod could not play in it. This inthrust or crushing strain is imparted to the reamer body at portions separated by a space, namely, the hole, corresponding directly with the imparting of inthrust in the Wilson underreamer to portions separated by a space, namely, the space between the “prongs.” And in that connection it must be borne in mind that whether such gap or space be present, or whether it be absent, as between the portions of the body which take the crushing strain or inthrust from the shoulders on the cutters, the co-action of the shoulder with the lug element is still present, preventing rotatory action of the cutters, and likewise diminishing

the leverage action above referred to which tends to break the cutters and dovetails in the old style Double underreamer. Thus, in this lug element or formation in the infringing reamers, the “prong” formation of the Wilson invention is present, and it is thus more particularly obtained. Although there be a thin web of metal confining the spring-actuated rod hole and extending to the outer faces of such lug element, that web element becomes useless and a mere idle element, as the separated spaced bearing faces on the shoulders of the Double underreamer-cutter do not co-act with such connecting web at any time, but, on the contrary, do co-act with the spaced portions of the lug element at the opposite sides of such hole. Thus it will be clear that identically the same results are obtained as though the hole were cut clear through to the faces of the lug element, literally producing *spaced* forks or prongs. This makes it very clear that in effect the retention of the metal to confine the hole outwardly to the faces of the lug element is merely a subterfuge employed in the Double improved reamer.

Thus appellant's desperate effort to make it appear that the infringing reamers have at all times used continuous inthrust-bearing faces on the cutters co-acting with continuous lug faces or spreading bearings on the body, *even if that could avoid infringement*, (which it could not), is found to be a deceptive and untrue statement and proposition, and defendant is found *in the majority of its infringing reamers* to have employed actually physically separated inthrust-bearing faces on its cutters co-acting with almost entirely physically separated spreading-bearings on its lug elements, the

slight webs of metal outward of the rod-hole being merely retained as a subterfuge to mask infringement, inasmuch as the hole might still be cut clear through the faces of the lugs, as far as the operation of the reamer in expansion and contraction of the cutters is concerned. What defendant did in Type "F" was really to leave out these thin webs of metal, and that enabled it to use the integral tee and rod or stem and obtain that further advantage of the Wilson invention, in addition to assembling at the bottom of the body and re-machining the prongs so produced, which re-machining was further permitted by the use of a key to hold the lower end of the spring in place of a shoulder as used in the improved reamer, which of course would be cut away and destroyed upon machining back the body. Thus we demonstrate further our proposition, repeatedly asserted hereinabove, that Type "F" is simply a more flagrant infringement than the preceding types, and make it easy for Your Honors to see why the production in this type awoke us to a full realization of how much further the defendant had infringed in and by the Double Improved reamer than charged under claims 16 and 17. Of course in Type "F" the prongs are separated clear up to the upthrust bearings 10 on the body (or downthrust bearings as the patent calls them).

IN OTHER WORDS, THE TYPE "F" REAMER BECAME AN INDEX TO THE MATERIAL AND EXTENSIVE RANGE OF INFRINGEMENT IN THE PRECEDING TYPES. IN IT THE DEFENDANT THREW OFF ITS MASK ENTIRELY AND MADE PLAIN AND CLEARLY VISIBLE THE EXTENT TO WHICH IT HAD BEEN INFRINGING IN ITS PREVIOUS TYPES. WHILE DEFENDANT HAD ATTEMPTED TO DECEIVE WILSON BY LEAVING IN THE THIN WEBS CONFINING THE ROD-HOLE IN THE DOUBLE IMPROVED REAMER, IN TYPE "F" IT REMOVED THOSE THIN WEBS AND MADE IT PLAIN TO US THAT THEY HAD PREVIOUSLY BEEN USED SIMPLY AS A SUBTERFUGE.

We are not now dealing with the portion of the hollow-slotted extension above the lug element, nor with the portion of the rod-hole which extends downwardly through that. Whether that be present in the defendant's infringing reamer bodies, as in the Double Improved and Types "D" and "E," or absent as in Type "F," infringement still occurs with respect to the novel features which we are now discussing, namely, the Wilson lug element and the co-acting bearing faces on the shoulders of the cutters. As to those features, the adoption of them by the appellant, either with or without the groove to physically separate the bearing faces on the shoulders, and either with or without the thin webs of metal confining the rod-hole in the lug element, the defendant obtained by their adoption all those advantages of the Wilson invention which consist of strengthening the cutter by moving its intrust bearings down on to the body of the cutter, prevention of rotatory action of the cutter, more effective imparting of intrust from the cutter to the body, increased

width of cutting edge of the cutter, increase of stock or metal in the cutter to be dressed out in sharpening the cutter, and increased mass of cutter to resist wear or abrasion caused by friction of the cutter against the wall of the hole.

It is important to note that over ninety per cent. of all the reamers ever made by the defendant are infringing reamers, as per its own statement filed under the rule with the Master on accounting. This is to be borne in mind by Your Honors in considering the effect of the decision in the companion case, particularly as it refers to the Double underreamer being a successful underreamer and taking the field. It took the field so far as the Union Tool Company is concerned by the use of the Wilson invention, the record in the other case clearly showing that prior to such use the predecessor of the defendant, in manufacturing the old-style Double underreamer of Defendant's Exhibit Double Patent No. 1, was constantly confronted with cutter breakages and body breakages occasioned by inherent weaknesses largely corrected by the later adoption of the Wilson invention. The defendant wilfully and knowingly changed its Double underreamer over to use the Wilson invention, and it was duly notified of the Wilson invention by the pleadings of the Wilson patent in defense in said other suit, the original suit having been brought in 1908, the year that the defendant corporation was organized.

Further, on counsel's contentions as to the meaning of the term "shoulders," as above said it is immaterial what the limitations to claims 16 and 17 may properly be within the file wrapper and contents of the Wilson

patent in suit. It is clear from the very language of the amendatory matter appearing on page 1046, record, that the rounded corners are only the terminal portions of the shoulders or the tops thereof, as in lines 1 to 6, inclusive, page 2 of the patent. [R. p. 980.] If that be not so, the said amendatory matter appearing in lines 84 to 90, inclusive, of the patent in suit [R. p. 980], would be unintelligible, for clearly the bearing faces 4³ are not the inner faces of such top terminal portions of the corners 4³. These faces are *below* such corners or bearings 16 and are *inner faces* of the shoulders at the tops of which such rounded corners or bearings 16 are formed. The patent must, of course, as, *supra*, be construed by considering all of its parts together, and not any one part distinct from any other part, and it is unfair to the patent to fail to consider fully the full disclosures of the drawings and the specification as to location and relations of these bearing faces, the shoulders upon the inner faces of which they are formed, and the rounded corners at the tops of such shoulders and faces. It is the bearing faces 4³ that engage with the spreading bearings 9—and not the corners 16.

To show the importance that Wilson attached to the lug element 2' with its spreading bearing 9, which is so clearly found in defendant's reamers, reference may be had to R. p. 1039 and the remarks there made by Wilson's patent attorney, as follows:

“Reconsideration and allowance of this claim is requested in view of the fact that none of the patents show the lugs called for in this claim, it being understood that the term ‘lugs’ is limited to projecting de-

vices, none of which for this purpose is shown in the patents.”

This clearly indicates the patentee’s contention before the patent office as to the entire novelty of this radically basic feature of his invention which has been appropriated by defendant.

On this question of the desperate attempt of appellants to make it appear that such limitations as might be properly read into claims 16 and 17 should also be read into other claims, such as claims 9 and 19 of the patent in suit, when these claims are for broad combinations of cutters having any kinds of shoulders with any kind of bearing faces on the inner sides of the shoulders, etc., etc., it was said in *Kings County Raisin & Fruit Co. v. United States Consolidated Seeded Raisin Co.*, 182 Fed. 59, that it does not necessarily follow from the fact that a claim of a patent describes a specific form of construction of a machine or part, that the inventor is limited to that form; but it depends on his expressed intention and the scope of his actual invention. If there was any “expressed intention” with respect to claims 16 and 17, which are the only claims on the cutters *per se*, there certainly was no intention of the inventor here, nor does the scope of his actual invention require, that the other claims, such as 9 and 19, be limited by any such “expressed intention” applicable to claims 16 and 17. Appellant garbles this whole proposition. He might as well say, for instance, that claim 8, which merely mentions cutters as such, should of necessity be limited to cutters having shoulders with bearing faces on the inner sides

of the same, and having rounded corners 16 at the upper portions of such shoulders. There is absolutely no legal warrant for any such proposition at all. Each claim, as we have pointed out, must be separately considered. This appeal is not concerned with the interpretation to be given to claims 16 and 17.

Where claims vary in scope and cover different subjects-matter, and where one claim is limited specifically to certain parts and the other is not, the presumption is that the claims were made separate claims in order to obtain difference in scope as between them. Claims 16 and 17 single out the cutters. Claims 9 and 19 make them merely elements of combination claims, and claim 9 *does not specify anything as to lower shoulder formation other than that the cutters shall have faces to bear on the projecting lugs*. Clearly these claims 9 and 19 cannot be construed in accordance with any construction which, in limitation, may properly be given to claims 16 and 17.

It is also to be pointed out that the cutters of appellant's reamers are just as much "shouldered" cutters as the cutters of appellee's Wilson reamer, inasmuch as the lateral shoulders having the bearing faces 4³ in both reamers of the appellant and appellee have corners at their tops, and there is no reason why these corners must necessarily be "rounded." In the appellant's reamers these corners extend away from the shank at right angles thereto, that is from the plane of the shank extended down to the corners. Therefore, we contend that as far as the specification of the Wilson patent goes no distinction can be made in favor of appellant. Even if the bearing face in the Double cutter

is entirely across the cutter, the shoulders thereof extend beyond the shank at each side and the bearing face of each shoulder is at one side of the shank or the plane of the shank. It is these lateral surfaces in both appellant's and appellee's reamers that operate to prevent rotatory action, etc., and the appellant definitely projected its shoulders in order to obtain these and other advantages of the invention of Wilson. It is to be borne in mind that the infringing Double reamer was not cited as a reference against the Wilson claims and no limitation was put in the Wilson specification because of such infringing reamers. The citation by the patent office was of the *prior Double patents, the structures of which were modified by the appellant to include the Wilson patented combinations*. Therefore Wilson is entitled to what he invented over and beyond these Double patents and their prior structures, and that measure so applied to the infringing reamers will be found to warrant the finding of infringement made and even the finding of infringement as to claims 16 and 17 and others.

Claims 16 and 17, it seems, as appellant's contention makes it out, were rejected on Double Patent No. 2. This patent had only the supplemental dovetails or lugs 10, *which were no broader than the bodies of the cutters*. In this the bodies of the cutters do not extend laterally beyond the shank portions or the supplemental dovetails or lugs 10 thereof. These lugs were not extensions of the body at all, but were on the shanks, and they merely resisted outthrust, as the patent specifically states. The body of the cutter, having the cutting edge 9, namely, the portion below the dove-

tails, did not bear upon the hollow-slotted extension of the reamer at all and did not have any bearings which could so bear upon the body.

Counsel makes the astounding statement on page 109 that mechanical equivalents are not patentable. If this were so, no device infringing a pioneer patent could be patentable in itself, and every patent in an art after the pioneer patent in that art would be invalid. This is too absurd to require further discussion.

On page 92 of appellant's brief we find a comparison of cross-section of areas of the bearings of the Wilson and Double reamer-cutters. That, even if true, would not be material here. The point is that defendant in its infringing reamers provided definitely laterally extended shoulders with bearing faces, and lug elements with which such bearing faces engage. It is not a question of relative dimensions of bearing faces as such, *but as to the disposition of the bearing and intrust surfaces*. Appellant definitely provided the lug elements and the lateral shoulders to co-operate with the lug elements, and that is all there is to this question.

There is no warrant for counsel's statement, and in fact it is untrue, that the cutters of the infringing reamers are not broader in the bodies than the cutters of the old-style Double reamer prior to the period of infringement. Likewise there is no warrant for counsel's statement, and it is untrue, that the bearings upon the body of the reamer have not been broadened, namely, the spreading bearings. These bearings have been broadened and extended out beneath the ways or dovetails with which the shoulders on the cutter shanks co-act, to extend the same outward to the periphery

of the body just like the spreading bearings 9 of the Wilson patent. That Wilson did produce, and aimed to produce, broader or wider cutters is indicated by his specification, page 1 [R. p. 579], as follows:

“Objects of this invention are to provide an under-reamer of superior strength and of superior width and expansion of cutters so as to enable reaming as great a portion of the circumference of the hole as possible at each storke,”—

How is it, then, that counsel can say, as he does on page 94, that Wilson in his patent specification “has represented that what he desired to cover was *not* greater or wider intrust bearings, or cutters having wider bodies,”?

Judge Cushman did not reconstruct any of the claims; he merely applied claims 9 and 19 to the infringing structures in such manner as to make it clear *that appellant had reconstructed its reamers*, or the Double reamers, to infringe these claims. The reconstructing was not done by the Trial Judge, but by the appellant. As a matter of fact, our contention, as above elaborated, is that Judge Cushman *did not decree enough in favor of complainant*, and that numerous other claims found by him to be valid and unanticipated should have been found likewise infringed. Judge Cushman’s references to entirely shearing away the side web of the extension to form a lug, were merely descriptive in part of what appellant had done in appropriating the Wilson invention. It did not mean that if a part of this web had been allowed to remain,

infringement would not have followed,—referring now to page 108.

It is worth while to comment further with respect to the Jones removable bowl abandoned experiment reamer, of which E. C. Wilson has testified he never heard anything prior to testifying in this case, that appellant did not use the teachings of this abandoned device, but used the teaching of the Wilson patent, to guide in infringement, and this is the very bowl-mouth type of reamer against which appellant's counsel so violently declaimed in the companion suit reported in 237 F. R. Take away this bowl and the Jones reamer is inoperative. Add a bowl to the Wilson patent type or to the infringing reamers, and the reamer is inoperative, for the cutters cannot co-act with the shoe at the lower end of the casing to cause collapsion. The bowl then is of the essence of the Jones construction, and neither the Wilson patent shows, nor the appellant, uses such essence. It is evident from the testimony in this case that the appellant imitated the Wilson reamer to get advantage of the Wilson features that were sweeping the appellant's reamers from the field. The infringement did not occur until after the Wilson patent was put on the market. Comparison makes it plain that the appellant followed Wilson's teaching. It is a very desperate infringer that has to fly to such an unanalogous abandoned experiment as this Jones reamer to attempt to save its skin.

On the question of the O'Donnell and Willard reamer, it has been counsel for appellant's contention in the companion case that this is an abandoned experiment. We have fully contrasted this with the Wil-

son invention and have shown that it does not apply. Again we say that appellant praises all this heterogeneous prior art, *but he uses of the substance of the Wilson invention*. If defendant did not think so much of the Wilson invention, why did he put up the supersedeas bond for \$25,000.00 to stay injunction in this case pending appeal? If what defendant has made is similar to the substance of Double patent No. 2, why doesn't it make that type of reamer? Why doesn't defendant make the Jones removable bowl reamer? The defendant cannot make any reamer but the "Wilsonized" Double reamer and keep its place at all in the trade and field. This is proven by the record and further proven by the action, speaking louder than words, namely, the putting up of the large supersedeas bond mentioned.

It would seem very unsafe and unwise for counsel to make the statements he does on page 117 regarding Double patent No. 2, when he says the following:

"In reality defendant has used an improvement of the Double patent No. 2, No. 748,054, and the bearings referred to by Judge Cushman are as wide therein as in the 'Double Improved,' or Type 'D' or Type 'E' or Type 'F' reamers."

This is, of course, off the record, because there is no reamer in evidence like Double patent No. 2. A mere comparison of the types mentioned with the drawing of the patent is enough. Clearly it is apparent from the drawings in this patent that these supplemental dovetails or lugs 10 are on the shanks of the cutters and not on the bodies, and that the bodies do not en-

gage with the body of the reamer at all, and that the narrow lugs 10 of the Double reamer No. 2 cutters which, as the specification says, merely prevent the cutters from spreading outwardly or imparting out-thrust to the body, are not extensions or shoulders upon the bodies of the cutters. As to the width of such cutters, the most casual comparison with the infringing types of reamers in evidence will show the untruth of the statement of appellant's counsel. All of the other differences have been repeatedly pointed out above. Neither does this Double patent No. 2, of course, suggest anything respecting the body lug formation of the Wilson patent.

As to counsel's authority on page 128, we again insist that Wilson made a much more sweeping invention than is reflected in any one of the three Double patents. Reaming was not new with Double. He took a theoretical transitory step in the art, but it remained to Wilson to devise the *real* and truly effective and serviceable and durable reamer, not because of any one feature of his invention, but because of several features, of which defendant has appropriated many. Had defendant appropriated the *entire* Wilson invention it would not probably be true today that the Wilson underreamer has superseded the Double underreamer with so many large interests. What the appellant did was to appropriate enough from the Wilson invention to "keep in the game" and palm off its product as being "as good as" the Wilson. Judge Cushman, we believe, did not go as far as he might properly have gone in measuring the stride taken by Wilson in the art. This big step did not, we contend, make it proper

that the Double prior patents should in any material way limit the scope of interpretation of the Wilson claims— but quite the contrary.

In Conclusion, Appellant Seems to Have Rested His Case Upon the Particular Grounds:

First, that the lower court, in spite of its repeated rulings and the rehearing granted appellant, erred in permitting the charge of infringement, broadly made in A-4 and only limited on the record in that case, to be enlarged and expanded by B-62 and in the consolidation of the two cases, and the other orders in connection with consolidation, so that the court might have brought before it *all* of defendant's infringing acts. Is this position equitable?

Second, that the Wilson patent is invalid for want of novelty, because of the abandoned Jones reamer experiment, the prior Double patents which appellant departed from in its infringement, and the O'Donnell and Willard patent for an entirely dissimilar thing and for a thing which has long since been disused, and which appellant, in case 1540, has insisted was an abandoned experiment.

Third, that the claims found infringed, albeit they are broad combination claims, must be limited to the specific form or shape of certain features of the cutters, elements of such claims, because those matters of form and shape were pointed out by the applicant in prosecuting his application, and in spite of the fact that they are not essential to the broad consideration of the combinations of the claims found infringed, and if at all

can only be pertinent to claims 16 and 17, not found infringed and which are not combination claims, and in spite of the further fact that there is no logical reason for finding the very cutters of the infringing reamers to fall outside of the very language of the specification and claims 16 and 17, inasmuch as such infringing cutters have shoulders with bearing faces thereon at opposite sides of the zone of the cutter shanks and are with respect to each other separated and spaced; and that the claims do not read upon the defendant's structures because they must be considered as only applied to reamers in which the cutter shanks collapse between the prongs.

Fourth, that appellant does not infringe because he does not use every feature and advantage of the Wilson invention, whether expressed in the Wilson patent or not, in spite of the fact that defendant clearly appropriates every material feature of the Wilson invention save and except the collapshion of the cutters between entirely spaced prongs.

As to defense No. 1, we contend that the record and minute orders of the lower court and the reiterated rulings of Judge Bledsoe and Judge Cushman established appellee's carefully planned and effective enlargement of the charge of infringement as beyond any possible attack.

The second defense, we believe, requires no further consideration. It is thoroughly disposed of by the attitude which counsel for appellant has repeatedly

taken in other cases before this court, and by the law as it stands in this and other circuits.

As to the third defense, under the authorities the patent is to be construed to protect the real invention (and can properly be so construed plus infringement), particularly under all the circumstances of the case, in which it is seen that defendant openly and knowingly and wilfully appropriated the invention.

As to the fourth defense, the test may again be said to be whether or not the appellant has taken of the substance of the Wilson invention, such test being clearly within the law as enunciated in this circuit in *Stebler v. Riverside Heights, etc., Company*, 205 F. R., *supra*, and which authority likewise holds it inexcusable for an infringer to make either an addition or an omission provided the substance of the invention be partaken of. And the law is that taking *any* part of the patent is infringement.

Appellant has taken the position in the companion case that the Double patent under which it has operated revolutionized the reamer art. If so, the defendant paid the highest tribute to the Wilson invention in departing from the Double patent construction and following the teachings of Wilson, who, as in the *Barbed Wire Patent Case*, 143 U. S., clearly took the last step in the art.

If appellant cannot sell its reamers without using the Wilson invention, it must be, first, that Wilson made a true and valuable invention, and, second, that defendant infringes the patent for the same.

We submit that it would be a gross miscarriage of justice to hold complainant's company for infringement of the Double patent, as found in the companion case, and to allow the defendant, Double's company, to go unenjoined and unpunished for its wilful appropriation of the Wilson invention.

We respectfully insist that Wilson made a broad and valuable invention, which is thoroughly and properly covered by valid patent, that the charge of infringement under same against appellant is properly brought before the court as to each of the claims asserted, and that the appellant has clearly and wilfully infringed claims 9 and 19 in addition to others of the claims as to which infringement is charged, in and by the manufacture of each and all of the types found in the decree of the lower court to infringe.

And we respectfully solicit that the decree of the lower court, and each and every part thereof, be affirmed, unless it be that modification thereof be recommended by Your Honors in favor of appellee as to further of the claims.

Respectfully submitted,

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